

H

B

108

HOUSE COMMITTEE REPORT

(7)

Date referred: 2/4/87

FURTHER REFERRALS: Resources
Finance

DATE: 2/25/87

The Labor & Commerce Committee has considered HB 108

"An Act relating to aquatic farming; and providing for an effective date."

RECOMMENDS:

- replace with CS HB108 (L+C) the same title
- attached amendment(s) a new title
- do pass
- do not pass
- no recommendation
- individual recommendations
- additional referral to the _____ Committee

ADOPTS: _____ letter of intent

ATTACHES NEW FISCAL NOTE(S):

- fiscal impact same as previous fiscal note published _____
- zero fiscal note same as previous zero fiscal note published _____
- zero with analysis

SIGNING DO PASS:

W. Ellis (with full public hearings in the Resources Committee)

Cont. [Signature] (with public hearings)

SIGNING OTHER RECOMMENDATIONS:

Walt Fumaco no rec

Alta Kopson no rec

June D. Douley no rec

Cliff Davidson (no rec)

Douglas Douley
Chairman's signature

Original sponsors: Ellis, Rieger,
Cotten, et al.

1 IN THE HOUSE

BY THE LABOR AND
COMMERCE COMMITTEE

2 CS FOR HOUSE BILL NO. 108 (L&C)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 FIFTEENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to aquatic farming; and providing
7 for an effective date."

8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

9 * Section 1. FINDINGS AND POLICY. (a) The legislature finds that

10 (1) aquatic farming in the state would provide a consistent
11 source of quality food, provide new jobs, increase state exports, create
12 new commercial fishing and other business opportunities, and increase the
13 stability and diversity of the state's economy;

14 (2) many areas of the state are ecologically suited for aquatic
15 farming development;

16 (3) aquatic farming would complement and enhance the variety and
17 quality of Alaska seafood and aquatic products, and thereby benefit the
18 state's economy;

19 (4) development of mariculture in the state would strengthen the
20 competitiveness of Alaska seafood in the world marketplace by broadening
21 the diversity of products and providing year-round supplies of premium
22 quality seafood; and

23 (5) the principal responsibility for development of aquatic
24 farming in the state rests with the private sector.

25 (b) It is the policy of the state

26 (1) to encourage the establishment and growth of an aquatic
27 farming industry in the state;

28 (2) to assist in the planning and orderly development of the
29 industry;

1 (3) that the industry be developed in a manner consistent with
2 the protection and enhancement of traditional high value industries and
3 with protection of the state's natural resources; and

4 (4) that aquatic farming be developed in a manner that assures
5 full participation and full benefits to the people of the state.

6 * Sec. 2. AS 08 is amended by adding a new chapter to read:

7 CHAPTER 06. AQUATIC FARMING.

8 Sec. 08.06.010. AQUATIC FARM AND HATCHERY PERMITS. (a) A
9 person may not, without a permit from the commissioner, construct or
10 operate

11 (1) an aquatic farm; or

12 (2) a hatchery for the purpose of supplying aquatic plants
13 or aquatic animals to an aquatic farm.

14 (b) A permit issued under this section authorizes the permittee,
15 subject to the conditions of this chapter, to acquire, purchase, offer
16 to purchase, transfer, possess, sell, and offer to sell stock and
17 aquatic farm products that are used or reared at the hatchery or
18 aquatic farm.

19 (c) The commissioner, after consulting with the commissioner of
20 fish and game and the commissioner of environmental conservation, may
21 attach conditions to a permit issued under this section that are
22 necessary to protect the public health or wild stock.

23 Sec. 08.06.020. PERMIT APPLICATION AND RENEWAL. (a) An appli-
24 cant for an aquatic farming or hatchery permit required under AS 08.-
25 06.010 shall apply on a form prescribed by the commissioner.

26 (b) A permit issued under this section expires one year after
27 the date of issue.

28 (c) An application for renewal must be accompanied by fees
29 required under AS 08.01.065 and a report of a health inspection of the

1 farm or hatchery to be permitted. The inspection shall be conducted
2 by the Department of Fish and Game or by a fish disease diagnostician
3 approved by the Department of Fish and Game. The inspection shall be
4 conducted not more than 30 days before the application is submitted to
5 the department.

6 Sec. 08.06.030. AQUATIC FARM STOCK ACQUISITION PERMITS. (a) A
7 person may not acquire aquatic plants or aquatic animals from wild
8 stock in the state for the purpose of supplying stock to an aquatic
9 farm or hatchery required to have a permit under AS 08.06.010 unless
10 the person holds an acquisition permit from the commissioner of fish
11 and game.

12 (b) An acquisition permit authorizes the permit holder to ac-
13 quire the species and quantities of wild stock in the state specified
14 in the permit for the purpose of supplying stock to an aquatic farm or
15 hatchery required to have a permit under AS 08.06.010.

16 (c) The commissioner of fish and game, in consultation with the
17 commissioner of commerce and economic development, shall specify the
18 expiration date of an acquisition permit and may attach conditions to
19 an acquisition permit, including conditions relating to the time,
20 place, and manner of harvest. Size, gear, place, time, licensing, and
21 other limitations applicable to sport, commercial, or subsistence
22 harvest of aquatic plants and aquatic animals do not apply to a har-
23 vest with a permit issued under this section.

24 (d) The commissioner of fish and game shall forward a copy of
25 each permit application under this section to the commissioner of
26 commerce and economic development. The commissioner of fish and game
27 shall issue or deny a permit within 30 days after receiving an appli-
28 cation.

29 (e) The commissioner of fish and game may deny or restrict a

1 permit under this section if the commissioner finds that the proposed
2 harvest will substantially impair sustained yield of the species. The
3 decision of the commissioner of fish and game must contain the factual
4 basis for the findings. If the substantial impairment could not have
5 been reasonably foreseen and avoided through available management
6 options, the commissioner of fish and game shall explain why in the
7 decision.

8 (f) Except as provided in (e) of this section, the commissioner
9 of fish and game shall issue a permit if

10 (1) wild stock is needed for initial farms or hatchery
11 stock;

12 (2) there are technological limitations on the propagation
13 of cultured stock for the species sought;

14 (3) wild stock is needed to maintain the gene pool of a
15 hatchery or aquatic farm; or

16 (4) commercial harvest of the species sought is not limited
17 under AS 16.43 and is not fully developed.

18 (g) Aquatic plants and aquatic animals acquired under a permit
19 issued under this section become the property of the permit holder and
20 are no longer a public or common resource.

21 (h) The commissioner of fish and game shall make stock available
22 for aquatic farming purposes.

23 Sec. 08.06.040. IMPORTATION OF AQUATIC PLANTS OR AQUATIC ANIMALS
24 FOR STOCK. A person may not import into the state an aquatic plant or
25 aquatic animal for the purpose of supplying stock to an aquatic farm
26 or hatchery unless authorized by the commissioner of fish and game or
27 by a regulation of the Board of Fisheries.

28 Sec. 08.06.050. LIMITATION ON SALE, TRANSFER OF STOCK, AND
29 PRODUCTS. (a) A private hatchery required to have a permit under

AS 08.06.010 may sell or transfer stock from the hatchery only to an aquatic farm or other hatchery that has a permit issued under AS 08.06.010.

(b) Stock may not be transferred to or from an aquatic farm or hatchery required to have a permit under AS 08.06.010 without prior notice of the transfer to the commissioner. A notice of transfer shall be submitted at least 30 days before the proposed date of transfer.

(c) A notice of transfer must be accompanied by a report of a health inspection of the stock. The inspection shall be conducted by the Department of Fish and Game or by a disease diagnostician approved by the Department of Fish and Game.

(d) The Department of Fish and Game may restrict or disapprove a transfer of stock if it finds that the transfer

(1) would present a substantial risk of spreading disease; or

(2) in the case of a transfer from a hatchery for which a permit has been issued under AS 16.10.400, would significantly impair the production needs of the hatchery.

(e) A person may not sell, transfer, or offer to sell or transfer, or knowingly purchase or receive, an aquatic farm product grown or propagated in the state unless the product was grown or propagated on a farm with a permit issued under AS 08.06.010. The permit must be in effect at the time of the sale, transfer, purchase, receipt, or offer.

Sec. 08.06.060. RELEASE OF CERTAIN FISH PROHIBITED. Salmon and trout may not intentionally be released into the public water of the state from a hatchery or aquatic farm required to have a permit under this chapter without prior authorization from the Department of Fish

1 and Game.

2 Sec. 08.06.070. DISEASE CONTROL AND INSPECTION. (a) The De-
3 partment of Fish and Game may order the quarantine or the destruction
4 and disposal of diseased hatchery stock or of aquatic farm products
5 when necessary to protect wild stock. A holder of a permit issued
6 under this chapter shall report to the Department of Fish and Game an
7 outbreak or incidence of disease among stock or aquatic farm products
8 of the permit holder.

9 (b) A holder of a permit issued under AS 08.06.070 shall allow
10 the Department of Fish and Game to inspect the permit holder's farm or
11 hatchery during operating hours and upon reasonable notice. The cost
12 of inspection shall be borne by the Department of Fish and Game.

13 (c) The Department of Fish and Game shall develop a disease
14 management and control program for aquatic farms and hatcheries.

15 (d) The Department of Fish and Game may enter into an agreement
16 with a state or federal agency or a private provider to provide ser-
17 vices under (b) and (c) of this section, or inspections under AS 08.-
18 06.020(b).

19 Sec. 08.06.080. REPORT. The commissioner shall submit to the
20 legislature, not later than the first day of each regular legislative
21 session, a report concerning the progress of the aquatic farming
22 industry, including the number of permits issued under AS 08.06.070,
23 the names and addresses of permit holders, the effect of the industry
24 on the commercial fishing industry in the state, and recommendations
25 for legislation relating to aquatic farming.

26 Sec. 08.06.090. REGULATIONS. The commissioner shall adopt regu-
27 lations necessary to implement this chapter and to effect state policy
28 concerning aquatic farming.

29 Sec. 08.06.100. PENALTY. A person who violates a provision of

1 this chapter, a regulation adopted under this chapter, or a term or
2 condition of a permit issued under this chapter, is guilty of a class
3 B misdemeanor.

4 Sec. 08.06.900. DEFINITIONS. In this chapter

5 (1) "aquatic farm" means a facility that grows, farms, or
6 cultivates aquatic farm products in captivity or under positive con-
7 trol;

8 (2) "aquatic farm product" includes an aquatic plant or
9 aquatic animal, or fish parts that are propagated, farmed, or cul-
10 tivated in an aquatic farm and sold or offered for consumption;

11 (3) "commissioner" means the commissioner of commerce and
12 economic development;

13 (4) "hatchery" means a facility for the artificial incu-
14 bation of stock, including rearing of juvenile aquatic plants or
15 aquatic animals;

16 (5) "positive control" means, for fish and other mobile
17 species, enclosed within a natural or artificial escape-proof barrier;
18 for species with limited or no mobility, such as a bivalve or an
19 aquatic plant, "positive control" also includes managed cultivation in
20 unenclosed water;

21 (6) "stock" means live aquatic plants and aquatic animals
22 acquired, collected, possessed, or intended for use by a hatchery or
23 aquatic farm for the purpose of further growth or propagation.

24 * Sec. 3. AS 08.01.065(a) is amended to read:

25 (a) The department shall adopt regulations that establish the
26 amount and manner of payment of application fees, examination fees,
27 license fees, registration fees, permit fees, investigation fees, and
28 all other fees as appropriate for the occupations covered by this
29 chapter, for aquatic farms and hatcheries under AS 08.06, and for real

1 estate brokers and salesmen under AS 08.88.

2 * Sec. 4. AS 16.05.251 is amended by adding a new subsection to read:

3 (f) Except as expressly provided in AS 08.06.040, the Board of
4 Fisheries may not adopt regulations or take action regarding the
5 issuance, denial, or conditioning of a permit under AS 08.06, the
6 construction or operation of a farm or hatchery required to have a
7 permit under AS 08.06.010, or a harvest with a permit issued under
8 AS 08.06.030. Regulations or orders adopted by the Board of Fisheries
9 under this section do not apply to a harvest with a permit issued
10 under AS 08.06.030.

11 * Sec. 5. AS 16.05.330(a) is amended to read:

12 (a) Except as otherwise permitted in this chapter, a person may
13 not engage in sport fishing, including the taking of razor clams; in
14 hunting, trapping, or fur dealing; in the farming of [FISH,] fur [,]
15 or game; or in taxidermy, without having the appropriate license or
16 tag in actual possession.

17 * Sec. 6. AS 16.05.340(a)(14) is amended to read:

18 (14) [FISH OR] game farming biennial licenses.....200

19 * Sec. 7. AS 16.05.920(a) is amended to read:

20 (a) Unless permitted by AS 16.05 - AS 16.40 or AS 08.06, or by
21 regulation adopted under AS 16.05 - AS 16.40 or AS 08.06, a person may
22 not take, possess, transport, sell, offer to sell, purchase, or offer
23 to purchase fish, game, or marine aquatic plants, or any part of fish,
24 game, or aquatic plants, or a nest or egg of fish or game.

25 * Sec. 8. AS 16.05.930 is amended by adding a new subsection to read:

26 (g) AS 16.05.330 - 16.05.720 do not apply to an activity au-
27 thorized by a permit issued under AS 08.06.010 or 08.06.030, or to a
28 person or vessel employed in an activity authorized by a permit issued
29 under AS 08.06.010 or 08.06.030.

1 * Sec. 9. AS 16.05.940(14) is amended to read:

2 (14) "[FISH OR] game farming" means the business of prop-
3 agating, breeding, raising, or producing [FISH OR] game in captivity
4 for the purpose of marketing the [FISH OR] game or game [THEIR] prod-
5 ucts, and "captivity" means having the [FISH OR] game under positive
6 control, as in a pen [, POND,] or an area of land that [OR WATER
7 WHICH] is completely enclosed by a generally escape-proof barrier;

8 * Sec. 10. AS 16.10 is amended by adding a new section to read:

9 Sec. 16.10.269. LIMITATIONS. AS 16.10.265 - 16.10.267 do not
10 apply to the purchase or sale of aquatic farm products from a holder
11 of a permit issued under AS 08.06.010 or stock from a holder of a
12 permit issued under AS 08.06.030.

13 * Sec. 11. AS 16.10.380(b) is amended to read:

14 (b) In this section "user group" includes, but is not limited
15 to, sport fishermen, processors, commercial fishermen, aquatic farm-
16 ers, subsistence fishermen, and representatives of local communities.

17 * Sec. 12. AS 16.10.400 is amended by adding a new subsection to read:

18 (h) AS 16.10.400 - 16.10.475 do not apply to the construction or
19 operation of a private hatchery that has a permit issued under AS 08.-
20 06.010.

21 * Sec. 13. AS 16.10.420 is amended to read:

22 Sec. 16.10.420. CONDITIONS OF A PERMIT. The department shall
23 require in a permit issued to a hatchery operator, that

24 (1) salmon eggs procured by the hatchery must be from the
25 department or a source approved by the department;

26 (2) no salmon eggs or resulting fry be placed in waters of
27 the state other than those specifically designated in the permit;

28 (3) no salmon eggs or resulting fry, sold to a permit
29 holder by the state or by another party approved by the department,

1 may be resold or otherwise transferred to another person, unless that
2 person holds a permit issued under AS 08.06.010;

3 (4) no salmon be released by the hatchery before department
4 approval, and, for purposes of pathological examination and approval,
5 the department shall be notified of the proposed release of salmon at
6 least 15 days before the date of their proposed release by the hatch-
7 ery;

8 (5) diseased salmon be destroyed in a specific manner and
9 place designated by the department;

10 (6) adult salmon be harvested by hatchery operators only at
11 specific locations as designated by the department;

12 (7) surplus eggs from salmon returning to the hatchery be
13 made available for sale first to the department and then, after in-
14 spection and approval by the department, to operators of other hatch-
15 eries authorized by permit to operate under AS 16.10.400 - 16.10.470,
16 or AS 08.06.010;

17 (8) if surplus salmon eggs are sold by a permit holder to
18 another permit holder, a copy of the sales transaction be provided to
19 the department;

20 (9) [REPEALED

21 (10)] a hatchery be located in an area where a reasonable
22 segregation from natural stocks occurs, but, when feasible, in an area
23 where returning hatchery fish will pass through traditional salmon
24 fisheries.

25 * Sec. 14. AS 16.10.450 is amended to read:

26 Sec. 16.10.450. SALE OF SALMON AND SALMON EGGS BY HATCHERY. A
27 hatchery operator who sells salmon returning from the natural water
28 [WATERS] of the state, or sells salmon eggs to another hatchery op-
29 erating under AS 16.10.400 - 16.10.470 or with a permit issued under

1 AS 08.06.010, after utilizing the funds for reasonable operating
2 costs, including debt retirement, expanding its facilities, salmon
3 rehabilitation projects, fisheries research, or for costs of operating
4 the qualified regional association for the area in which the hatchery
5 is located, shall expend the remaining funds on other fisheries activ-
6 ities of the qualified regional association. Fish returning to hatch-
7 eries and sold for human consumption must [SHALL] be of comparable
8 quality to fish harvested by commercial fisheries in the area, and
9 shall be sold at prices commensurate with the current market.

10 * Sec. 15. AS 16.43.140 is amended by adding a new subsection to read:

11 (d) This chapter does not apply to activities authorized by a
12 permit issued under AS 08.06.010 or 08.06.030.

13 * Sec. 16. AS 16.51.180(5) is amended to read:

14 (5) "seafood" means finfish, shellfish, and fish by-prod-
15 ucts, including but not limited to salmon, halibut, herring, flounder,
16 crab, clam, cod, shrimp, and pollock, but does not include aquatic
17 farm products as defined in AS 08.06.900;

18 * Sec. 17. AS 38.05.035 is amended by adding a new subsection to read:

19 (g) A land use or tidelands permit issued under this section for
20 aquatic farming or related hatchery operations under AS 08.06 may be
21 issued only to a resident or to a corporation licensed to do business
22 in the state.

23 * Sec. 18. This Act takes effect immediately under AS 01.10.070(c).
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25
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**STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE**

REQUEST: _____

Bill Version : _____
Publish Date : _____

Revised by: _____
Title: HB 100 - An Act Relating to the
Servicing of Mortgage Loans of AHFC
Sponsor: Rep. Randy Phillips
Requestor: Revenue

Agency Affected: Revenue
BRU: Alaska Housing Finance
Corporation
Components : _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
REVENUE	-0-	-0-	-0-	-0-	-0-	-0-

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

Prepared by: Dr. Ronald D. Lehr *Rh*
Division: ALASKA HOUSING FINANCE CORPORATION

Phone: 276-5599
Date: March 20, 1987

Approved by Commissioner: _____
Agency: _____

Date: _____

- Distribution (by preparer):
- Legislative Finance
 - Legislative Sponsor
 - Requestor
 - Office of Management and Budget
 - Impacted Agency(ies)
 - Senate Secretary

Attachment to Bill Analysis for HB 112

Under Section b(2)(B) changes in the loan escrow are governed by the Deed of Trust. Loan escrows are also regulated under federal laws.

Section C is to open ended as proposed. There is no limit on the kind of or number of requests a servicer will be required to respond to.

Again, under Section D, Loan Escrows are governed by federal laws.

Section E refers to penalties that can be assessed. It is our understanding that AHFC would not be expected to enforce these penalties, since AHFC is not set up to be an enforcement agency. It may be useful to delineate how the penalties are to be enforced.

**STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE**

Revision Date : _____

REQUEST

Bill/Resolution No. : HB 108
 Title : "An Act relating to aquatic farming"
 Sponsor : ELLIS
 Requestor : _____
 Date of Request : _____

FISCAL DETAIL

Agency Affected : Environmental Conservation
 BRU : Environmental Health
 Components : Seafood Industry,
Palmer Laboratory

EXPENDITURES/REVENUES : (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING : (Thousands of Dollars)

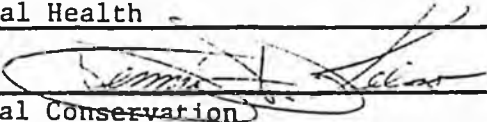
GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS :

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

ANALYSIS : Attach a separate page if necessary

This Bill will have no fiscal impact on the Department of Environmental Conservation.

Prepared by : Douglas Donegan Phone : 465-2609
 Division : Environmental Health Date : _____
 Approved by Commissioner :  Date : March 2 1987
 Agency : Environmental Conservation

Distribution (by Agency preparing fiscal note) :

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

**STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE**

REQUEST: _____
 Revision Date: 2-4-87
 Title: An Act Relating to Aquatic Farming
 Sponsor: Ellis, Rieger, Cotten, Brown,
 Requestor: etc.

Bill Version: HB 108
 Publish Date: _____

Agency Affected: Natural Resources
 BRU: Land and Water Management

Components: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES	0	84.6	171.3	171.3	210.6	210.6
TRAVEL	0	20.0	25.0	25.0	22.0	22.0
CONTRACTUAL	0	2.0	4.0	4.0	4.0	4.0
SUPPLIES	0	1.0	2.0	2.0	2.0	2.0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING	0	107.6	202.3	202.3	238.6	238.6
CAPITAL	0	0	0	0	0	0
REVENUE	0	15.5	23.5	32.0	36.0	40.0

FUNDING: (Thousands of Dollars)

GENERAL FUND	0	107.6	202.3	202.3	238.6	238.6
FEDERAL FUNDS	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL	0	107.6	202.3	202.3	238.6	238.6

POSITIONS:

FULL-TIME	0	2	3	3	4	4
PART-TIME	0	0	2	2	2	2
TEMPORARY	0	0	0	0	0	0

ANALYSIS : (Attach a separate page if necessary)

See Attached

Prepared by: Paula Burgess Phone: 465-3400
 Division: Land and Water Management Date: 2/13/87
 Approved by Commissioner: [Signature] Date: _____
 Agency: Natural Resources

Distribution (by preparer):

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)
- Senate Secretary

HB 108 Analysis

In order to assess the fiscal impact of HB 108, we estimate the number of new applications for tideland leases and permits that we expect. The actual number of applications will vary depending upon the fee structure for leasing and permitting, and the "prove up" requirements of the bill. At present our permit fees are extremely low and the cost of obtaining a lease is quite high. At this stage no "land law" accompanies the bill to alter the lease or permit structure. We recognize that certain changes are desirable to encourage growth of the industry, such as the acceptance of a paper plat rather than a full survey for a lease in remote areas. While such changes may be forthcoming in later committees, the fiscal note here reflects the existing permit structure.

We estimate the number of new applications the first year to be the following:

- 30 salmon
- 25 scallop
- 10 oyster
- 3 mussel
- 2 kelp

We require one adjudicator in the Southeast Region and one adjudicator in the Southcentral Region to handle the new applications. The second year we require one additional adjudicator (to be located where the need is the greatest) to handle additional new applications. By the fourth year we are assuming the need of two adjudicators in each of the two regions.

The second year we require a part time contract administrator to handle the accumulation of two years of lease contracts, and a part time surveyor to review survey plats. (The survey cost may be reduced somewhat if the bill is amended to allow paper plats rather than full surveys in remote areas.)

A goal of the state and of those seriously interested in aquatic farming is to avoid land speculation. In order to accomplish this, it will be necessary to inspect most lease and permit sites once a year. Some inspections can be combined with other field investigations, and some may be performed under cooperative agreements with other agencies. A lean inspection program will cost \$10,000 for each adjudicator the first year (travel and per diem). In subsequent years the cost will decline as we establish inspection efficiencies.

Under existing statutes and regulations, the number of leases and permits estimated above would generate

approximately \$15,500 in revenue the first year. As the number of operations increases each year, the revenue increases modestly. If the bill were amended to allow the Commissioner to charge a percentage of gross receipts, revenues could increase substantially once the industry began to flourish.

Position Summary

Fiscal Year '88

Two (2) - Natural Resource Officers II (Range 16)

Fiscal Years '89 and '90

Three (3) - Natural Resource Officers II (Range 16)
One (1) - Part-time Contract Administrator (Range 14)
One (1) - Part-time Surveyor (Range 20)

Fiscal Years '91 and '92

Four (4) - Natural Resource Officers II (Range 16)
One (1) - Part-time Contract Administrator (Range 14)
One (1) - Part-time Surveyor (Range 20)

**STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE**

REQUEST: _____
 Bill Version: HB 108/SB 106
 Publish Date: 2/4/87
 Revision Date: N/A
 Title: Aquatic Farming: Mariculture
 Agency Affected: Commerce & Econ. Dev.
 BRU: Economic Development Advocates
 Sponsor: Rep. Ellis/Senator Zharoff
 Requestor: _____
 Components: Office of Commercial Fisheries Development

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES	15.0	5.5	6.0	6.6	7.3	8.0
TRAVEL	10.0	5.5	6.1	6.7	7.3	8.1
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	25.0	11.0	12.1	13.3	14.6	16.1

CAPITAL						
---------	--	--	--	--	--	--

REVENUE	5.0	10.0	15.0	20.0	25.0	30.0
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FUNDING: (Thousands of Dollars)

GENERAL FUND	25.0	11.0	12.1	13.3	14.6	16.1
FEDERAL FUNDS						
OTHER						
TOTAL	25.0	11.0	12.1	13.3	14.6	16.1

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

This program will become a priority mission of OCFD and shall be assigned to existing personnel. Initial permit requests are not expected to exceed 80% of one Development Specialist II available time. Travel is programmed for site visits as envisioned by the bill and contractual includes phone, photocopy and

Prepared by: W.G. Paulick Phone: 465-2162
 Division: Office of Commercial Fisheries Development Date: 2/17/87
 Approved by Commissioner: Anthony Smith Date: 2/17/87
 Agency: Department of Commerce and Economic Development

Distribution (by preparer):

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)
- Senate Secretary

1987 LEGISLATIVE SESSION
FISCAL NOTE

HB 108/SB 106

Analysis: (Continued)

other expenses related to permitting as required by the bill. FY 87 includes funding for public hearings, etc., to finalize new regulations. Program receipts have been estimated by using a fee of \$100 per annual permit; 50 new permits per year.

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

REQUEST: _____

Bill Version: SB 106/HB 108
Publish Date: 2/4/87

Revision Date: _____
Title: _____

Agency Affected: ADF&G
BRU: FRED

Sponsor: Zharoff et al, Ellis et al.
Requestor: _____

Components: FRED

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES		157	157	183	236	330
TRAVEL		6	6	10	17	20
CONTRACTUAL		1	1	2	1	8
SUPPLIES		2	4	6	10	22
EQUIPMENT				1	2	5
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING		166	168	202	269	385

CAPITAL						
---------	--	--	--	--	--	--

REVENUE						
---------	--	--	--	--	--	--

FUNDING: (Thousands of Dollars)

GENERAL FUND		166	168	202	269	385
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

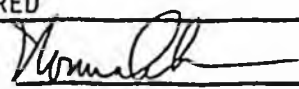
FULL-TIME		2	2	3	3.5	9
PART-TIME		1	2	1	2	0
TEMPORARY		1	0	0	0	0

ANALYSIS : (Attach a separate page if necessary)

This analysis estimates costs of pathology services and permitting based on 100 permit applications in FY 88, ultimately resulting in 20 operational fish farms by FY 92 of economically significant size.

(see attached for additional comments)

Prepared by: Dr. Mike Kail Phone: 465-4160
Division: ADF&G/FRED Date: _____

Approved by Commissioner:  Date: 2-2-87
Agency: _____

Distribution (by preparer):

- Legislative Finance
- Legislative Sponsor
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Estimated cost of services to be provided by ADF&G are fish pathology services, permit processing and technical oversight.

For pathology services, estimated costs are based on current workload and budget for the section at this time, to arrive at a per-unit cost (e.g. \$600,000/37 hatcheries = \$16,000/hatchery). An additional \$12,000 is budgeted for investigations and diagnostic services in the first year. Types of services are: diagnostic, broodstock, water source analysis, shellfish certification, pre-release inspection, and human health concerns.

For permitting and technical oversight services, an assessment of work requirements was made by calling the Marine Resources Division of the B.C. provincial government. For the first three years, two full-time technicians would be required. Thereafter, manpower needs will diminish. The types of work to be undertaken will be communication with applicants, review of application materials, coordination with programs such as coastal zone consistency review, and technical biology and fish culture oversight.

It is very difficult to anticipate what will happen if a mariculture program is enabled in Alaska. We have prepared this note based on observations and consultations with managers of similar programs. We then applied this to Alaska, using the incomplete data at hand. These must be considered rough estimates of cost. As further information becomes available, the fiscal note could change. Also, as the bill becomes modified as it passes through the legislative process, there may be changes in the bill that will have corresponding changes in the fiscal note.

Original sponsors: Ellis, Rieger,
Cotten, et al.

BY THE LABOR AND
COMMERCE COMMITTEE

1 IN THE HOUSE

2 CS FOR HOUSE BILL NO. 108 (L&C)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 FIFTEENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to aquatic farming; and providing
7 for an effective date."

8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

9 * Section 1. FINDINGS AND POLICY. (a) The legislature finds that

10 (1) aquatic farming in the state would provide a consistent
11 source of quality food, provide new jobs, increase state exports, create
12 new commercial fishing and other business opportunities, and increase the
13 stability and diversity of the state's economy;

14 (2) many areas of the state are ecologically suited for aquatic
15 farming development;

16 (3) aquatic farming would complement and enhance the variety and
17 quality of Alaska seafood and aquatic products, and thereby benefit the
18 state's economy;

19 (4) development of mariculture in the state would strengthen the
20 competitiveness of Alaska seafood in the world marketplace by broadening
21 the diversity of products and providing year-round supplies of premium
22 quality seafood; and

23 (5) the principal responsibility for development of aquatic
24 farming in the state rests with the private sector.

25 (b) It is the policy of the state

26 (1) to encourage the establishment and growth of an aquatic
27 farming industry in the state;

28 (2) to assist in the planning and orderly development of the
29 industry;

1 (3) that the industry be developed in a manner consistent with
2 the protection and enhancement of traditional high value industries and
3 with protection of the state's natural resources; and

4 (4) that aquatic farming be developed in a manner that assures
5 full participation and full benefits to the people of the state.

6 * Sec. 2. AS 08 is amended by adding a new chapter to read:

7 CHAPTER 06. AQUATIC FARMING.

8 Sec. 08.06.010. AQUATIC FARM AND HATCHERY PERMITS. (a) A
9 person may not, without a permit from the commissioner, construct or
10 operate

11 (1) an aquatic farm; or

12 (2) a hatchery for the purpose of supplying aquatic plants
13 or aquatic animals to an aquatic farm.

14 (b) A permit issued under this section authorizes the permittee,
15 subject to the conditions of this chapter, to acquire, purchase, offer
16 to purchase, transfer, possess, sell, and offer to sell stock and
17 aquatic farm products that are used or reared at the hatchery or
18 aquatic farm.

19 (c) The commissioner, after consulting with the commissioner of
20 fish and game and the commissioner of environmental conservation, may
21 attach conditions to a permit issued under this section that are
22 necessary to protect the public health or wild stock.

23 Sec. 08.06.020. PERMIT APPLICATION AND RENEWAL. (a) An appli-
24 cant for an aquatic farming or hatchery permit required under AS 08.-
25 06.010 shall apply on a form prescribed by the commissioner.

26 (b) A permit issued under this section expires one year after
27 the date of issue.

28 (c) An application for renewal must be accompanied by fees
29 required under AS 08.01.065 and a report of a health inspection of the

1 farm or hatchery to be permitted. The inspection shall be conducted
2 by the Department of Fish and Game or by a fish disease diagnostician
3 approved by the Department of Fish and Game. The inspection shall be
4 conducted not more than 30 days before the application is submitted to
5 the department.

6 Sec. 08.06.030. AQUATIC FARM STOCK ACQUISITION PERMITS. (a) A
7 person may not acquire aquatic plants or aquatic animals from wild
8 stock in the state for the purpose of supplying stock to an aquatic
9 farm or hatchery required to have a permit under AS 08.06.010 unless
10 the person holds an acquisition permit from the commissioner of fish
11 and game.

12 (b) An acquisition permit authorizes the permit holder to ac-
13 quire the species and quantities of wild stock in the state specified
14 in the permit for the purpose of supplying stock to an aquatic farm or
15 hatchery required to have a permit under AS 08.06.010.

16 (c) The commissioner of fish and game, in consultation with the
17 commissioner of commerce and economic development, shall specify the
18 expiration date of an acquisition permit and may attach conditions to
19 an acquisition permit, including conditions relating to the time,
20 place, and manner of harvest. Size, gear, place, time, licensing, and
21 other limitations applicable to sport, commercial, or subsistence
22 harvest of aquatic plants and aquatic animals do not apply to a har-
23 vest with a permit issued under this section.

24 (d) The commissioner of fish and game shall forward a copy of
25 each permit application under this section to the commissioner of
26 commerce and economic development. The commissioner of fish and game
27 shall issue or deny a permit within 30 days after receiving an appli-
28 cation.

29 (e) The commissioner of fish and game may deny or restrict a

1 permit under this section if the commissioner finds that the proposed
2 harvest will substantially impair sustained yield of the species. The
3 decision of the commissioner of fish and game must contain the factual
4 basis for the findings. If the substantial impairment could not have
5 been reasonably foreseen and avoided through available management
6 options, the commissioner of fish and game shall explain why in the
7 decision.

8 (f) Except as provided in (e) of this section, the commissioner
9 of fish and game shall issue a permit if

10 (1) wild stock is needed for initial farms or hatchery
11 stock;

12 (2) there are technological limitations on the propagation
13 of cultured stock for the species sought;

14 (3) wild stock is needed to maintain the gene pool of a
15 hatchery or aquatic farm; or

16 (4) commercial harvest of the species sought is not limited
17 under AS 16.43 and is not fully developed.

18 (g) Aquatic plants and aquatic animals acquired under a permit
19 issued under this section become the property of the permit holder and
20 are no longer a public or common resource.

21 (h) The commissioner of fish and game shall make stock available
22 for aquatic farming purposes.

23 Sec. 08.06.040. IMPORTATION OF AQUATIC PLANTS OR AQUATIC ANIMALS
24 FOR STOCK. A person may not import into the state an aquatic plant or
25 aquatic animal for the purpose of supplying stock to an aquatic farm
26 or hatchery unless authorized by the commissioner of fish and game or
27 by a regulation of the Board of Fisheries.

28 Sec. 08.06.050. LIMITATION ON SALE, TRANSFER OF STOCK, AND
29 PRODUCTS. (a) A private hatchery required to have a permit under

1 AS 08.06.010 may sell or transfer stock from the hatchery only to an
2 aquatic farm or other hatchery that has a permit issued under AS 08.-
3 06.010.

4 (b) Stock may not be transferred to or from an aquatic farm or
5 hatchery required to have a permit under AS 08.06.010 without prior
6 notice of the transfer to the commissioner. A notice of transfer
7 shall be submitted at least 30 days before the proposed date of trans-
8 fer.

9 (c) A notice of transfer must be accompanied by a report of a
10 health inspection of the stock. The inspection shall be conducted by
11 the Department of Fish and Game or by a disease diagnostician approved
12 by the Department of Fish and Game.

13 (d) The Department of Fish and Game may restrict or disapprove a
14 transfer of stock if it finds that the transfer

15 (1) would present a substantial risk of spreading disease;
16 or

17 (2) in the case of a transfer from a hatchery for which a
18 permit has been issued under AS 16.10.400, would significantly impair
19 the production needs of the hatchery.

20 (e) A person may not sell, transfer, or offer to sell or trans-
21 fer, or knowingly purchase or receive, an aquatic farm product grown
22 or propagated in the state unless the product was grown or propagated
23 on a farm with a permit issued under AS 08.06.010. The permit must be
24 in effect at the time of the sale, transfer, purchase, receipt, or
25 offer.

26 Sec. 08.06.060. RELEASE OF CERTAIN FISH PROHIBITED. Salmon and
27 trout may not intentionally be released into the public water of the
28 state from a hatchery or aquatic farm required to have a permit under
29 this chapter without prior authorization from the Department of Fish

1 and Game.

2 Sec. 08.06.070. DISEASE CONTROL AND INSPECTION. (a) The De-
3 partment of Fish and Game may order the quarantine or the destruction
4 and disposal of diseased hatchery stock or of aquatic farm products
5 when necessary to protect wild stock. A holder of a permit issued
6 under this chapter shall report to the Department of Fish and Game an
7 outbreak or incidence of disease among stock or aquatic farm products
8 of the permit holder.

9 (b) A holder of a permit issued under AS 08.06.010 shall allow
10 the Department of Fish and Game to inspect the permit holder's farm or
11 hatchery during operating hours and upon reasonable notice. The cost
12 of inspection shall be borne by the Department of Fish and Game.

13 (c) The Department of Fish and Game shall develop a disease
14 management and control program for aquatic farms and hatcheries.

15 (d) The Department of Fish and Game may enter into an agreement
16 with a state or federal agency or a private provider to provide ser-
17 vices under (b) and (c) of this section, or inspections under AS 08.-
18 06.020(b).

19 Sec. 08.06.080. REPORT. The commissioner shall submit to the
20 legislature, not later than the first day of each regular legislative
21 session, a report concerning the progress of the aquatic farming
22 industry, including the number of permits issued under AS 08.06.010,
23 the names and addresses of permit holders, the effect of the industry
24 on the commercial fishing industry in the state, and recommendations
25 for legislation relating to aquatic farming.

26 Sec. 08.06.090. REGULATIONS. The commissioner shall adopt regu-
27 lations necessary to implement this chapter and to effect state policy
28 concerning aquatic farming.

29 Sec. 08.06.100. PENALTY. A person who violates a provision of

1 this chapter, a regulation adopted under this chapter, or a term or
2 condition of a permit issued under this chapter, is guilty of a class
3 B misdemeanor.

4 Sec. 08.06.900. DEFINITIONS. In this chapter

5 (1) "aquatic farm" means a facility that grows, farms, or
6 cultivates aquatic farm products in captivity or under positive con-
7 trol;

8 (2) "aquatic farm product" includes an aquatic plant or
9 aquatic animal, or fish parts that are propagated, farmed, or cul-
10 tivated in an aquatic farm and sold or offered for consumption;

11 (3) "commissioner" means the commissioner of commerce and
12 economic development;

13 (4) "hatchery" means a facility for the artificial incu-
14 bation of stock, including rearing of juvenile aquatic plants or
15 aquatic animals;

16 (5) "positive control" means, for fish and other mobile
17 species, enclosed within a natural or artificial escape-proof barrier;
18 for species with limited or no mobility, such as a bivalve or an
19 aquatic plant, "positive control" also includes managed cultivation in
20 unenclosed water;

21 (6) "stock" means live aquatic plants and aquatic animals
22 acquired, collected, possessed, or intended for use by a hatchery or
23 aquatic farm for the purpose of further growth or propagation.

24 * Sec. 3. AS 08.01.065(a) is amended to read:

25 (a) The department shall adopt regulations that establish the
26 amount and manner of payment of application fees, examination fees,
27 license fees, registration fees, permit fees, investigation fees, and
28 all other fees as appropriate for the occupations covered by this
29 chapter, for aquatic farms and hatcheries under AS 08.06, and for real

1 estate brokers and salesmen under AS 16.088.

2 * Sec. 4. AS 16.05.251 is amended by adding a new subsection to read:

3 (f) Except as expressly provided in AS 08.06.040, the Board of
4 Fisheries may not adopt regulations or take action regarding the
5 issuance, denial, or conditioning of a permit under AS 08.06, the
6 construction or operation of a farm or hatchery required to have a
7 permit under AS 08.06.010, or a harvest with a permit issued under
8 AS 08.06.030. Regulations or orders adopted by the Board of Fisheries
9 under this section do not apply to a harvest with a permit issued
10 under AS 08.06.030.

11 * Sec. 5. AS 16.05.330(a) is amended to read:

12 (a) Except as otherwise permitted in this chapter, a person may
13 not engage in sport fishing, including the taking of razor clams; in
14 hunting, trapping, or fur dealing; in the farming of [FISH,] fur [,]
15 or game; or in taxidermy, without having the appropriate license or
16 tag in actual possession.

17 * Sec. 6. AS 16.05.340(a)(14) is amended to read:

18 (14) [FISH OR] game farming biennial licenses.....200

19 * Sec. 7. AS 16.05.920(a) is amended to read:

20 (a) Unless permitted by AS 16.05 - AS 16.40 or AS 08.06, or by
21 regulation adopted under AS 16.05 - AS 16.40 or AS 08.06, a person may
22 not take, possess, transport, sell, offer to sell, purchase, or offer
23 to purchase fish, game, or marine aquatic plants, or any part of fish,
24 game, or aquatic plants, or a nest or egg of fish or game.

25 * Sec. 8. AS 16.05.930 is amended by adding a new subsection to read

26 (g) AS 16.05.330 - 16.05.720 do not apply to an activity au-
27 thorized by a permit issued under AS 08.06.010 or 08.06.030, or to a
28 person or vessel employed in an activity authorized by a permit issued
29 under AS 08.06.010 or 08.06.030.

1 * Sec. 9. AS 16.05.940(14) is amended to read:

2 (14) "[FISH OR] game farming" means the business of prop-
3 agating, breeding, raising, or producing [FISH OR] game in captivity
4 for the purpose of marketing the [FISH OR] game or game [THEIR] prod-
5 ucts, and "captivity" means having the [FISH OR] game under positive
6 control, as in a pen [, POND,] or an area of land that [OR WATER
7 WHICH] is completely enclosed by a generally escape-proof barrier;

8 * Sec. 10. AS 16.10 is amended by adding a new section to read:

9 Sec. 16.10.269. LIMITATIONS. AS 16.10.265 - 16.10.267 do not
10 apply to the purchase or sale of aquatic farm products from a holder
11 of a permit issued under AS 08.06.010 or stock from a holder of a
12 permit issued under AS 08.06.030.

13 * Sec. 11. AS 16.10.380(b) is amended to read:

14 (b) In this section "user group" includes, but is not limited
15 to, sport fishermen, processors, commercial fishermen, aquatic farm-
16 ers, subsistence fishermen, and representatives of local communities.

17 * Sec. 12. AS 16.10.400 is amended by adding a new subsection to read:

18 (h) AS 16.10.400 - 16.10.475 do not apply to the construction or
19 operation of a private hatchery that has a permit issued under AS 08.-
20 06.010.

21 * Sec. 13. AS 16.10.420 is amended to read:

22 Sec. 16.10.420. CONDITIONS OF A PERMIT. The department shall
23 require, in a permit issued to a hatchery operator, that

24 (1) salmon eggs procured by the hatchery must be from the
25 department or a source approved by the department;

26 (2) no salmon eggs or resulting fry be placed in waters of
27 the state other than those specifically designated in the permit;

28 (3) no salmon eggs or resulting fry, sold to a permit
29 holder by the state or by another party approved by the department,

1 may be resold or otherwise transferred to another person, unless that
2 person holds a permit issued under AS 08.06.010;

3 (4) no salmon be released by the hatchery before department
4 approval, and, for purposes of pathological examination and approval,
5 the department shall be notified of the proposed release of salmon at
6 least 15 days before the date of their proposed release by the hatch-
7 ery;

8 (5) diseased salmon be destroyed in a specific manner and
9 place designated by the department;

10 (6) adult salmon be harvested by hatchery operators only at
11 specific locations as designated by the department;

12 (7) surplus eggs from salmon returning to the hatchery be
13 made available for sale first to the department and then, after in-
14 spection and approval by the department, to operators of other hatch-
15 eries authorized by permit to operate under AS 16.10.400 - 16.10.470,
16 or AS 08.06.010;

17 (8) if surplus salmon eggs are sold by a permit holder to
18 another permit holder, a copy of the sales transaction be provided to
19 the department;

20 (9) [REPEALED

21 (10)] a hatchery be located in an area where a reasonable
22 segregation from natural stocks occurs, but, when feasible, in an area
23 where returning hatchery fish will pass through traditional salmon
24 fisheries.

25 * Sec. 14. AS 16.10.450 is amended to read:

26 Sec. 16.10.450. SALE OF SALMON AND SALMON EGGS BY HATCHERY. A
27 hatchery operator who sells salmon returning from the natural water
28 [WATERS] of the state, or sells salmon eggs to another hatchery op-
29 erating under AS 16.10.400 - 16.10.470 or with a permit issued under

1 AS 08.06.010, after utilizing the funds for reasonable operating
2 costs, including debt retirement, expanding its facilities, salmon
3 rehabilitation projects, fisheries research, or for costs of operating
4 the qualified regional association for the area in which the hatchery
5 is located, shall expend the remaining funds on other fisheries activ-
6 ities of the qualified regional association. Fish returning to hatch-
7 eries and sold for human consumption must [SHALL] be of comparable
8 quality to fish harvested by commercial fisheries in the area, and
9 shall be sold at prices commensurate with the current market.

10 * Sec. 15. AS 16.43.140 is amended by adding a new subsection to read:

11 (d) This chapter does not apply to activities authorized by a
12 permit issued under AS 08.06.010 or 08.06.030.

13 * Sec. 16. AS 16.51.180(5) is amended to read:

14 (5) "seafood" means finfish, shellfish, and fish by-prod-
15 ucts, including but not limited to salmon, halibut, herring, flounder,
16 crab, clam, cod, shrimp, and pollock, but does not include aquatic
17 farm products as defined in AS 08.06.900;

18 * Sec. 17. This Act takes effect immediately under AS 01.10.070(c).
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28
29

Original sponsors: Ellis, Rieger,
Cotten, et al.

BY THE LABOR AND
COMMERCE COMMITTEE

1 IN THE HOUSE

2 CS FOR HOUSE BILL NO. 108 (L&C)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 FIFTEENTH LEGISLATURE - FIRST SESSION

5 A BILL

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16 to purchase, transfer, possess, sell, and offer to sell stock and
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18 aquatic farm.

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14 in the permit for the purpose of supplying stock to an aquatic farm or
15 hatchery required to have a permit under AS 08.06.010.

16 (c) The commissioner of fish and game, in consultation with the
17 commissioner of commerce and economic development, shall specify the
18 expiration date of an acquisition permit and may attach conditions to
19 an acquisition permit, including conditions relating to the time,
20 place, and manner of harvest. Size, gear, place, time, licensing, and
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4 basis for the findings. If the substantial impairment could not have
5 been reasonably foreseen and avoided through available management
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19 issued under this section become the property of the permit holder and
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22 for aquatic farming purposes.

23 Sec. 08.06.040. IMPORTATION OF AQUATIC PLANTS OR AQUATIC ANIMALS
24 FOR STOCK. A person may not import into the state an aquatic plant or
25 aquatic animal for the purpose of supplying stock to an aquatic farm
26 or hatchery unless authorized by the commissioner of fish and game or
27 by a regulation of the Board of Fisheries.

28 Sec. 08.06.050. LIMITATION ON SALE, TRANSFER OF STOCK, AND
29 PRODUCTS. (a) A private hatchery required to have a permit under

1 AS 08.06.010 may sell or transfer stock from the hatchery only to an
2 aquatic farm or other hatchery that has a permit issued under AS 08.-
3 06.010.

4 (b) Stock may not be transferred to or from an aquatic farm or
5 hatchery required to have a permit under AS 08.06.010 without prior
6 notice of the transfer to the commissioner. A notice of transfer
7 shall be submitted at least 30 days before the proposed date of trans-
8 fer.

9 (c) A notice of transfer must be accompanied by a report of a
10 health inspection of the stock. The inspection shall be conducted by
11 the Department of Fish and Game or by a disease diagnostician approved
12 by the Department of Fish and Game.

13 (d) The Department of Fish and Game may restrict or disapprove a
14 transfer of stock if it finds that the transfer

15 (1) would present a substantial risk of spreading disease;
16 or

17 (2) in the case of a transfer from a hatchery for which a
18 permit has been issued under AS 16.10.400, would significantly impair
19 the production needs of the hatchery.

20 (e) A person may not sell, transfer, or offer to sell or trans-
21 fer, or knowingly purchase or receive, an aquatic farm product grown
22 or propagated in the state unless the product was grown or propagated
23 on a farm with a permit issued under AS 08.06.010. The permit must be
24 in effect at the time of the sale, transfer, purchase, receipt, or
25 offer.

26 Sec. 08.06.060. RELEASE OF CERTAIN FISH PROHIBITED. Salmon and
27 trout may not intentionally be released into the public water of the
28 state from a hatchery or aquatic farm required to have a permit under
29 this chapter without prior authorization from the Department of Fish

1 and Game.

2 Sec. 08.06.070. DISEASE CONTROL AND INSPECTION. (a) The De-
3 partment of Fish and Game may order the quarantine or the destruction
4 and disposal of diseased hatchery stock or of aquatic farm products
5 when necessary to protect wild stock. A holder of a permit issued
6 under this chapter shall report to the Department of Fish and Game an
7 outbreak or incidence of disease among stock or aquatic farm products
8 of the permit holder.

9 (b) A holder of a permit issued under AS 08.06.010 shall allow
10 the Department of Fish and Game to inspect the permit holder's farm or
11 hatchery during operating hours and upon reasonable notice. The cost
12 of inspection shall be borne by the Department of Fish and Game.

13 (c) The Department of Fish and Game shall develop a disease
14 management and control program for aquatic farms and hatcheries.

15 (d) The Department of Fish and Game may enter into an agreement
16 with a state or federal agency or a private provider to provide ser-
17 vices under (b) and (c) of this section, or inspections under AS 08.-
18 06.020(b).

19 Sec. 08.06.080. REPORT. The commissioner shall submit to the
20 legislature, not later than the first day of each regular legislative
21 session, a report concerning the progress of the aquatic farming
22 industry, including the number of permits issued under AS 08.06.010,
23 the names and addresses of permit holders, the effect of the industry
24 on the commercial fishing industry in the state, and recommendations
25 for legislation relating to aquatic farming.

26 Sec. 08.06.090. REGULATIONS. The commissioner shall adopt regu-
27 lations necessary to implement this chapter and to effect state policy
28 concerning aquatic farming.

29 Sec. 08.06.100. PENALTY. A person who violates a provision of

1 this chapter, a regulation adopted under this chapter, or a term or
2 condition of a permit issued under this chapter, is guilty of a class
3 B misdemeanor.

4 Sec. 08.06.900. DEFINITIONS. In this chapter

5 (1) "aquatic farm" means a facility that grows, farms, or
6 cultivates aquatic farm products in captivity or under positive con-
7 trol;

8 (2) "aquatic farm product" includes an aquatic plant or
9 aquatic animal, or fish parts that are propagated, farmed, or cul-
10 tivated in an aquatic farm and sold or offered for consumption;

11 (3) "commissioner" means the commissioner of commerce and
12 economic development;

13 (4) "hatchery" means a facility for the artificial incu-
14 bation of stock, including rearing of juvenile aquatic plants or
15 aquatic animals;

16 (5) "positive control" means, for fish and other mobile
17 species, enclosed within a natural or artificial escape-proof barrier;
18 for species with limited or no mobility, such as a bivalve or an
19 aquatic plant, "positive control" also includes managed cultivation in
20 unenclosed water;

21 (6) "stock" means live aquatic plants and aquatic animals
22 acquired, collected, possessed, or intended for use by a hatchery or
23 aquatic farm for the purpose of further growth or propagation.

24 * Sec. 3. AS 03.05.020(a) is amended to read:

25 (a) The commissioner shall

26 (1) require routine inspection of food animals, fish,
27 poultry and derivative food products, to protect the public against
28 fraud, disease and spoilage, and in this connection adopt uniform
29 regulations establishing standards of identity and composition of

1 these food products and minimum standards of sanitation and handling
2 methods as to all phases of slaughtering, processing, storing, trans-
3 porting, displaying and selling of these food products;

4 (2) issue orders or cause the orders to be issued by an
5 authorized veterinarian prohibiting transportation and sale of food
6 products intended for human consumption which do not meet the minimum
7 requirements established under (1) of this subsection, and limiting
8 their use and disposal in conformity with protection of the public;

9 (3) adopt a schedule of fees or charges, and credit pro-
10 visions, for services rendered by state veterinarians to farmers and
11 others at their request in caring for livestock and poultry, and all
12 the fees shall be transmitted to the commissioner for deposit in the
13 state treasury;

14 (4) designate points of entry for admission of livestock or
15 poultry into the state, and arrange inspection at those points with or
16 without collaboration and assistance of the federal government, and
17 bar entry of stock or poultry not shipped under a valid permit or not
18 free from contagious or infectious disease;

19 (5) adopt, repeal, and amend regulations consistent with
20 existing law for

21 (A) the labeling and grading of milk and milk products
22 and standards of cleanliness and sanitation, to at least the
23 minimum of current recommendations of the United States Public
24 Health Service, for the operation of dairies selling, or offering
25 for sale, milk or milk products;

26 (B) the production and sale of ice cream and allied
27 frozen desserts;

28 (C) the production and sale of imitation milk and
29 imitation milk products;

1 (6) monitor aquatic farms and hatcheries that hold permits
2 under AS 08.06.010 for the possible presence of paralytic shellfish
3 poisoning.

4 * Sec. 4. AS 08.01.065(a) is amended to read:

5 (a) The department shall adopt regulations that establish the
6 amount and manner of payment of application fees, examination fees,
7 license fees, registration fees, permit fees, investigation fees, and
8 all other fees as appropriate for the occupations covered by this
9 chapter, for aquatic farms and hatcheries under AS 08.06, and for real
10 estate brokers and salesmen under AS 08.88.

11 * Sec. 5. AS 16.05.251 is amended by adding a new subsection to read:

12 (f) Except as expressly provided in AS 08.06.040, the Board of
13 Fisheries may not adopt regulations or take action regarding the
14 issuance, denial, or conditioning of a permit under AS 08.06, the
15 construction or operation of a farm or hatchery required to have a
16 permit under AS 08.06.010, or a harvest with a permit issued under
17 AS 08.06.030. Regulations or orders adopted by the Board of Fisheries
18 under this section do not apply to a harvest with a permit issued
19 under AS 08.06.030.

20 * Sec. 6. AS 16.05.330(a) is amended to read:

21 (a) Except as otherwise permitted in this chapter, a person may
22 not engage in sport fishing, including the taking of razor clams; in
23 hunting, trapping, or fur dealing; in the farming of [FISH,] fur [,]
24 or game; or in taxidermy, without having the appropriate license or
25 tag in actual possession.

26 * Sec. 7. AS 16.05.340(a)(14) is amended to read:

27 (14) [FISH OR] game farming biennial licenses.....200

28 * Sec. 8. AS 16.05.920(a) is amended to read:

29 (a) Unless permitted by AS 16.05 - AS 16.40 or AS 08.06, or by

1 regulation adopted under AS 16.05 - AS 16.40 or AS 08.06, a person may
2 not take, possess, transport, sell, offer to sell, purchase, or offer
3 to purchase fish, game, or marine aquatic plants, or any part of fish,
4 game, or aquatic plants, or a nest or egg of fish or game.

5 * Sec. 9. AS 16.05.930 is amended by adding a new subsection to read:

6 (g) AS 16.05.330 - 16.05.720 do not apply to an activity au-
7 thorized by a permit issued under AS 08.06.010 or 08.06.030, or to a
8 person or vessel employed in an activity authorized by a permit issued
9 under AS 08.06.010 or 08.06.030.

10 * Sec. 10. AS 16.05.940(14) is amended to read:

11 (14) "[FISH OR] game farming" means the business of prop-
12 agating, breeding, raising, or producing [FISH OR] game in captivity
13 for the purpose of marketing the [FISH OR] game or game [THEIR] prod-
14 ucts, and "captivity" means having the [FISH OR] game under positive
15 control, as in a pen [, POND,] or an area of land that [OR WATER
16 WHICH] is completely enclosed by a generally escape-proof barrier;

17 * Sec. 11. AS 16.10 is amended by adding a new section to read:

18 Sec. 16.10.269. LIMITATIONS. AS 16.10.265 - 16.10.267 do not
19 apply to the purchase or sale of aquatic farm products from a holder
20 of a permit issued under AS 08.06.010 or stock from a holder of a
21 permit issued under AS 08.06.030.

22 * Sec. 12. AS 16.10.380(b) is amended to read:

23 (b) In this section "user group" includes, but is not limited
24 to, sport fishermen, processors, commercial fishermen, aquatic farm-
25 ers, subsistence fishermen, and representatives of local communities.

26 * Sec. 13. AS 16.10.400 is amended by adding a new subsection to read:

27 (h) AS 16.10.400 - 16.10.475 do not apply to the construction or
28 operation of a private hatchery that has a permit issued under AS 08.-
29 06.010.

1 * Sec. 14. AS 16.10.420 is amended to read:

2 Sec. 16.10.420. CONDITIONS OF A PERMIT. The department
3 shall require, in a permit issued to a hatchery operator, that

4 (1) salmon eggs procured by the hatchery must be from the
5 department or a source approved by the department;

6 (2) no salmon eggs or resulting fry be placed in waters of
7 the state other than those specifically designated in the permit;

8 (3) no salmon eggs or resulting fry, sold to a permit
9 holder by the state or by another party approved by the department,
10 may be resold or otherwise transferred to another person, unless that
11 person holds a permit issued under AS 08.06.010;

12 (4) no salmon be released by the hatchery before department
13 approval, and, for purposes of pathological examination and approval,
14 the department shall be notified of the proposed release of salmon at
15 least 15 days before the date of their proposed release by the hatch-
16 ery;

17 (5) diseased salmon be destroyed in a specific manner and
18 place designated by the department;

19 (6) adult salmon be harvested by hatchery operators only at
20 specific locations as designated by the department;

21 (7) surplus eggs from salmon returning to the hatchery be
22 made available for sale first to the department and then, after in-
23 spection and approval by the department, to operators of other hatch-
24 eries authorized by permit to operate under AS 16.10.400 - 16.10.470,
25 or AS 08.06.010;

26 (8) if surplus salmon eggs are sold by a permit holder to
27 another permit holder, a copy of the sales transaction be provided to
28 the department;

29 (9) [REPEALED

1 (10)] a hatchery be located in an area where a reasonable
2 segregation from natural stocks occurs, but, when feasible, in an area
3 where returning hatchery fish will pass through traditional salmon
4 fisheries.

5 * Sec. 15. AS 16.10.450 is amended to read:

6 Sec. 16.10.450. SALE OF SALMON AND SALMON EGGS BY HATCHERY. A
7 hatchery operator who sells salmon returning from the natural water
8 [WATERS] of the state, or sells salmon eggs to another hatchery op-
9 erating under AS 16.10.400 - 16.10.470 or with a permit issued under
10 AS 08.06.010, after utilizing the funds for reasonable operating
11 costs, including debt retirement, expanding its facilities, salmon
12 rehabilitation projects, fisheries research, or for costs of operating
13 the qualified regional association for the area in which the hatchery
14 is located, shall expend the remaining funds on other fisheries activ-
15 ities of the qualified regional association. Fish returning to hatch-
16 eries and sold for human consumption must [SHALL] be of comparable
17 quality to fish harvested by commercial fisheries in the area, and
18 shall be sold at prices commensurate with the current market.

19 * Sec. 16. AS 16.43.140 is amended by adding a new subsection to read:

20 (d) This chapter does not apply to activities authorized by a
21 permit issued under AS 08.06.010 or 08.06.030.

22 * Sec. 17. AS 16.51.180(5) is amended to read:

23 (5) "seafood" means finfish, shellfish, and fish by-prod-
24 ucts, including but not limited to salmon, halibut, herring, flounder,
25 crab, clam, cod, shrimp, and pollock, but does not include aquatic
26 farm products as defined in AS 08.06.900;

27 * Sec. 18. This Act takes effect immediately under AS 01.10.070(c).
28
29

COMPARISON OF 2/17/87 AND 2/24/87 COMMITTEE SUBSTITUTES

The only difference between CS HB 108 (L&C) 2/17//87 which was adopted by the committee last Tuesday and CS HB 108 (L&C) 2/24/87 is that the the old CS had 18 sections and the new CS has 17 sections reflecting the elimination of Section 3.

Section 3 of the 2/17/87 CS was eliminated at the suggestion of the Department of Environmental Conservation to avoid potential duplication of existing services.

The section added language to AS 03.05.020(a) which read:

(6) monitor aquatic farms and hatcheries that hold permits under AS 08.06.101 for the possible presence of paralytic shellfish poisoning.

D.E.C. informs us that this function is covered under 18 AAC Chapter 34.

A M E N D M E N T

#1

Offered in the HOUSE

TO: CSHB 108(L&C)(2/24/87 draft)

Page 11, after line 17:

Insert a new bill section to read:

"* Sec. 17. AS 38.05.035 is amended by adding a new subsection to read:

(g) A land use or tidelands permit issued under this section for aquatic farming or related hatchery operations under AS 08.06 may be issued only to a resident or to a corporation licensed to do business in the state."

Renumber following bill section accordingly.

STATE OF ALASKA
THE LEGISLATURE

POUCH Y STATE CAPITOL
JUNEAU, ALASKA 99811
907 465 3800

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM

February 25, 1987

SUBJECT: Sectional analysis of CSHB 108 (L&C),
relating to aquatic farming

TO: Representative Dave Donley

FROM: Edward H. Hein *EH*
Legislative Counsel

Section 1 is a statement of legislative findings and policy, specifying the benefits to the state that aquatic farming could provide and expressing a state policy of encouraging the development of aquatic farming.

Sec. 2 establishes a new chapter, AS 08.06, in the businesses and professions title of the Alaska Statutes. AS 08.06.010(a) prohibits the construction or operation of an aquatic farm, or a hatchery to supply an aquatic farm, without a permit from the commissioner of commerce and economic development. Subsection (b) states what activities are authorized under a permit. Subsection (c) allows the commissioner to attach conditions to a permit in order to protect public health and natural aquatic animals and plants. At page 2, line 11, "natural" should be changed to "wild".

AS 08.06.020(a) provides for permit applications forms. Subsection (b) specifies that the permit expires after one year. Subsection (c) requires a permit application to include permit fees and a report of a health inspection conducted by the Department of Fish and Game within 30 days before filing the application.

AS 08.06.030(a) requires that a person have an acquisition permit from the Department of Fish and Game in order to acquire wild aquatic plants or animals to supply an aquatic farm. Subsection (b) states that an acquisition permit authorizes only those stock specified in a permit. Subsection (c) requires the commissioner of fish and game to specify the expiration date of permits and allows the commissioner

to attach conditions to the permit. A harvest under an acquisition permit is exempt from limitations applicable to sport, commercial, or subsistence harvests. Subsection (d) directs the commissioner of fish and game to send a copy of each acquisition permit application to the commissioner of commerce and economic development. Subsection (e) authorizes the commissioner of fish and game to deny or restrict an acquisition permit to protect the sustained-yield management of a species. There must be a factual basis for the denial or restriction. If impairment to sustained-yield management could not have been foreseen and avoided, the commissioner must explain why in the decision. Subsection (f) states four alternative conditions under any one of which the commissioner of fish and game must issue an acquisition permit. Subsection (g) states that plants and animals acquired under a permit become property of the permit holder. Subsection (h) directs the commissioner of fish and game to make stock available for aquatic farming purposes.

AS 08.06.040 prohibits the importation into the state of aquatic plants or animals to supply an aquatic farm or hatchery without authorization from the commissioner of fish and game or under a Board of Fisheries regulation. I would recommend that on page 4, line 13, after "hatchery" the phrase "required to have a permit under AS 08.06.010," be inserted, so that it is clear that this section does not apply to all hatcheries.

AS 08.06.050(a) provides that a private hatchery required to have a permit under AS 08.06 may sell or transfer stock only to an aquatic farm or hatchery that has a permit under AS 08.06. Subsection (b) requires that the commissioner of commerce and economic development be notified at least 30 days before stock is transferred to or from an aquatic farm or hatchery. Subsection (c) requires that the notice required under (b) include a stock health inspection report. Subsection (d) allows the Department of Fish and Game to restrict or disapprove a transfer under certain conditions. Subsection (e) prohibits transfers, sales, and purchases of Alaska aquatic farm products unless the products were produced under a permit. References in this section to "this chapter" should be changed to read "AS 08.06.010"; these appear at page 4, lines 17, 19, and 21, and at page 5, line 10.

AS 08.06.060 prohibit the release of trout or salmon from an aquatic farm or hatchery into state water, unless authorized by the Department of Fish and Game.

AS 08.06.070(a) allows the Department of Fish and Game to order the quarantine or destruction and disposal of diseased hatchery stock or aquatic farm products in order to protect wild stock. Permit holders are required to report disease among their stock or aquatic farm products to the department. Subsection (b) requires permit holders to allow the Department of Fish and Game to inspect the farms and hatcheries during operating hours with reasonable notice. Subsection (c) requires the department to develop a disease management and control program. Subsection (d) allows the department to contract for the performance of its duties under (b) and (c).

AS 08.06.080 requires the commissioner of commerce and economic development to submit an annual report on aquatic farming to the legislature.

AS 08.06.090 authorizes the commissioner of commerce and economic development to adopt regulations necessary for AS 08.06.

AS 08.06.100 makes violation of AS 08.06 or regulations adopted under it a class B misdemeanor.

AS 08.06.900 defines terms for AS 08.06.

Sec. 3 makes the centralized licensing provisions of AS 08.01 in the Department of Commerce and Economic Development applicable to aquatic farms and hatcheries under AS 08.06.

Sec. 4 prohibits the Board of Fisheries from adopting regulations or taking action regarding aquatic farm or hatchery permits under AS 08.06, or to a harvest under an acquisition permit.

Secs. 5, 6, and 9 delete provisions relating to fish farming from AS 16.05 in order to conform to provisions of sec. 2.

Sec. 7 inserts cross-references to AS 08.06, necessitated by sec. 2.

Sec. 8 exempts aquatic farming from the licensing requirements in AS 16.05 for sport fishing, hunting, and commercial fishing and vessels.

Sec. 10 exempts purchases and sales of aquatic farm products from the requirements of AS 16.10.265 - 16.10.267, relating to commercial fish purchases and possession of limited entry permits.

Sec. 11 provides for the inclusion of aquatic farmers in regional aquaculture associations.

Sec. 12 makes provisions related to salmon hatchery permits inapplicable to hatcheries holding a permit under AS 08.06.-010.

Sec. 13 makes an exception to restrictions on the resale or transfer of salmon eggs or fry by a salmon hatchery. The exception would allow resale or transfer to a hatchery or aquatic farm holding a permit under AS 08.06.010. This section also requires that surplus eggs from salmon returning to a hatchery be made available to hatcheries supplying aquatic farms.

Sec. 14 provides that requirements relating to funds derived by a hatchery from the sale of salmon eggs to a hatchery that supplies aquatic farms must be expended in the same manner as provided for funds from sales of eggs to other hatcheries.

Sec. 15 makes the provisions of AS 16.43, relating to limited entry, inapplicable to activities authorized under an aquatic farm permit.

Sec. 16 exempts aquatic farm products from the provisions of AS 16.51, which relate to the Alaska Seafood Marketing Institute.

Sec. 17 provides an immediate effective date for the bill.

EHH:csh
c7/069

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WHILE IN SESSION
P.O. BOX V
JUNEAU, ALASKA 99811
(907) 465-3704

ALASKA STATE HOUSE

OFFICE OF MAJORITY WHIP



CO-CHAIR
HEALTH, EDUCATION & SOCIAL SERVICES

LABOR & COMMERCE
SUBCOMMITTEE ON FOREIGN TRADE

REPRESENTATIVE JOHNNY ELLIS

M E M O R A N D U M

TO: MEMBERS OF THE HOUSE
FROM: REPRESENTATIVE JOHNNY ELLIS *JE*
DATE: FEBRUARY 17, 1987
RE: HB 108

HB 108 is designed to remove the regulatory and legal impediments stifling the growth of a sea farming industry in Alaska. I believe this legislation will become one of the most important steps this Legislature can take to help create new jobs for Alaskans and stimulate non-petroleum dependent economic growth.

Mariculture--or aquatic farming as it is referred to in the legislation--is growing rapidly throughout the world. In 1983, cultured seafoods represented about 12 percent of the global production of fish and shellfish or about 22 billion pounds.

This phenomenal growth is keeping pace with increases in seafood consumption throughout the world. No where have those increases been more apparent than in the United States. Americans ate 609 million pounds more seafood in 1985 than they did in 1982. This amounts to a 21.5 percent increase in consumption in only four years.

Meanwhile, commercial fishing landings by U.S. fishermen declined over the same period of time. This situation has resulted in tremendous increases of imports of foreign products and a startling seafood trade deficit for the United States.

The unpolluted, productive waters of Alaska's many sheltered bays and fjords are considered ideal for mariculture development, and the potential for seafarming in Alaska is staggering. Unfortunately, the State of Alaska has failed to

adopt a policy favoring mariculture development. As a result, Alaskans interested in sea farming find it impossible to obtain permits for most mariculture activities.

House Bill 108 removes administrative barriers to mariculture development and will allow the industry to grow in an orderly fashion. Importantly, this legislation also provides strong protections for our vital wild stocks of fish, shellfish and aquatic plants. The bill provides sea farmers with no shortcuts in our existing environmental regulation process or priority over other users of the tidelands.

I have worked closely with the private sector to develop this legislation, and I am pleased to tell you that the bill asks for no state loans or subsidies. Sea farmers want mariculture to be industry driven so it responds to the marketplace and not the level of government spending.

Some of you wonder why a legislator from Downtown Anchorage is so interested in mariculture development when it is quite likely that the nearest sea farm is likely to be located many miles from my district. First, I believe it is vital to all Alaskans that we decrease our overall dependence upon a single source of revenue. Secondly, Anchorage's service-oriented economy will receive significant benefits from economic development in our coastal areas.

I look forward to working with you on this important piece of legislation, and invite all of you interested in becoming involved to join as co-sponsors of the legislation.

AQUATIC FARM AND AQUATIC FARM HATCHERY PERMITS

CHAPTER 08.06

OPERATING PERMIT

Issued by DC&ED
Subject to DEC requirements
(18 ACC 34)
EPA

AQUATIC FARM STOCK ACQUISITION PERMITS

Issued by FISH & GAME
*

NOTICE OF TRANSFER

Notify DC&ED
Subject to F&G health
inspection

* At this point, the stock is transformed from a public resource to private property.

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE COMMISSIONER

STEVE COWPER, GOVERNOR

400 WILLOUGHBY AVE.
JUNEAU, ALASKA 99801
PHONE: (907) 465-2400

February 17, 1987

The Honorable Dave Donley
Chairman
House Labor and Commerce Committee
Alaska State Legislature
P.O. Box V
Juneau, Alaska 99811

Dear Representative Donley:

Subject: House Bill 108, relating to Aquatic farming.

Position: The Department of Natural Resources recommends that the House Labor and Commerce Committee pass HB 108 to the Resources Committee for further consideration of land use issues.

Background: HB 108 provides for the construction and operation of Aquatic farms. Under AS 38.05.070, land, including tide, submerged or shoreland, to which the state holds title, may be leased in a manner provided in AS 38.05.070 - 38.05.105 and subject to the approval of the Commissioner of Natural Resources.

Recommendation: While the Department of Natural Resources generally supports the goals of HB 108 and the creation of new commercial opportunities through utilization of the State's resources, in the opinion of the Department, HB 108 needs to further address land use issues.

Specifically, the Department recommends that leasing and permitting processes be designed to encourage development of the mariculture industry, but discourage speculation. This could be accomplished, for example, by requiring applicants to demonstrate by prove up that their projects are viable by preparation of a development schedule. Additionally, leasing and permitting alternatives which encourage small operations, such as lease fees or rent based on gross receipts, could be considered.

The enclosed Fiscal Note is based on an estimate of the number of leases and permits that would result from the bill as presently written. The actual number of new applications will undoubtedly vary depending on the fee structure for leasing and permitting and any special requirements that the final Bill contains.

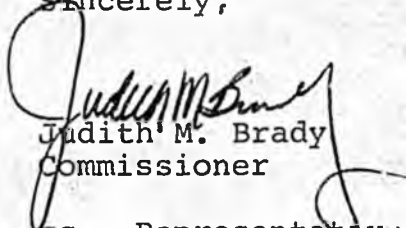
The Honorable Dave Donley

-2-

February 17, 1987

I would be pleased to make my staff available to work with your staff regarding the land use issue. If you would like additional information or have any questions, please contact my office.

Sincerely,



Judith M. Brady
Commissioner

cc: Representative Koponen
Representative Boucher
Representative Davidson
Representative Furnace
Representative Menard
Representative Ellis
Representative Rieger
Representative Cotten
Representative Brown
Representative Pearce
Representative Boyer
Representative Collins
Representative Zawacki
George Sullivan
Rod Swope
Tom Hawkins

HB 108 Analysis

In order to assess the fiscal impact of HB 108, we estimate the number of new applications for tideland leases and permits that we expect. The actual number of applications will vary depending upon the fee structure for leasing and permitting, and the "prove up" requirements of the bill. At present our permit fees are extremely low and the cost of obtaining a lease is quite high. At this stage no "land law" accompanies the bill to alter the lease or permit structure. We recognize that certain changes are desirable to encourage growth of the industry, such as the acceptance of a paper plat rather than a full survey for a lease in remote areas. While such changes may be forthcoming in later committees, the fiscal note here reflects the existing permit structure.

We estimate the number of new applications the first year to be the following:

- 30 salmon
- 25 scallop
- 10 oyster
- 3 mussel
- 2 kelp

We require one adjudicator in the Southeast Region and one adjudicator in the Southcentral Region to handle the new applications. The second year we require one additional adjudicator (to be located where the need is the greatest) to handle additional new applications. By the fourth year we are assuming the need of two adjudicators in each of the two regions.

The second year we require a part time contract administrator to handle the accumulation of two years of lease contracts, and a part time surveyor to review survey plats. (The survey cost may be reduced somewhat if the bill is amended to allow paper plats rather than full surveys in remote areas.)

A goal of the state and of those seriously interested in aquatic farming is to avoid land speculation. In order to accomplish this, it will be necessary to inspect most lease and permit sites once a year. Some inspections can be combined with other field investigations, and some may be performed under cooperative agreements with other agencies. A lean inspection program will cost \$10,000 for each adjudicator the first year (travel and per diem). In subsequent years the cost will decline as we establish inspection efficiencies.

Under existing statutes and regulations, the number of leases and permits estimated above would generate

approximately \$15,500 in revenue the first year. As the number of operations increases each year, the revenue increases modestly. If the bill were amended to allow the Commissioner to charge a percentage of gross receipts, revenues could increase substantially once the industry began to flourish.

Position Summary

Fiscal Year '88

Two (2) - Natural Resource Officers II (Range 16)

Fiscal Years '89 and '90

Three (3) - Natural Resource Officers II (Range 16)
One (1) - Part-time Contract Administrator (Range 14)
One (1) - Part-time Surveyor (Range 20)

Fiscal Years '91 and '92

Four (4) - Natural Resource Officers II (Range 16)
One (1) - Part-time Contract Administrator (Range 14)
One (1) - Part-time Surveyor (Range 20)

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

REQUEST: _____

Bill Version: HB 108
Publish Date: _____

Revision Date: 2-4-87

Agency Affected: Natural Resources
BRU: Land and Water Management

Title: An Act Relating to Aquatic Farming

Sponsor: Ellis, Rieger, Cotten, Brown,
Requestor: etc.

Components: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES	0	84.6	171.3	171.3	210.6	210.6
TRAVEL	0	20.0	25.0	25.0	22.0	22.0
CONTRACTUAL	0	2.0	4.0	4.0	4.0	4.0
SUPPLIES	0	1.0	2.0	2.0	2.0	2.0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING	0	107.6	202.3	202.3	238.6	238.6

CAPITAL	0	0	0	0	0	0
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REVENUE	0	15.5	23.5	32.0	36.0	40.0
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FUNDING: (Thousands of Dollars)

GENERAL FUND	0	107.6	202.3	202.3	238.6	238.6
FEDERAL FUNDS	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL	0	107.6	202.3	202.3	238.6	238.6

POSITIONS:

FULL-TIME	0	2	3	3	4	4
PART-TIME	0	0	2	2	2	2
TEMPORARY	0	0	0	0	0	0

ANALYSIS : (Attach a separate page if necessary)

See Attached

Prepared by: Paula Burgess Phone: 465-3400
Division: Land and Water Management Date: 2/13/87

Approved by Commissioner: _____ Date: _____
Agency: Natural Resources

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)
Senate Secretary

February 25, 1987

Mark Kandianis
P.O. Box 3366
Kodiak, AK 99615

The Honorable Dave Donley
Chairman
House Labor and Commerce Committee
P.O. Box 1
Juneau, AK 99811

Dear Representative Donley:

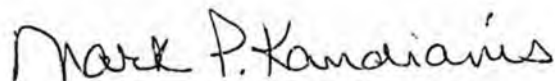
I am writing in regard to the aquatic farming bill presently being considered by your committee. I have been fishing for scallops for the past 20 years - the last seven in Alaska as captain of a 100' scallop vessel. I have been observing the activities of the cooperative aquaculture project taking place in Kodiak and would appreciate the opportunity to make these observations.

In order for the work of the project to be useful, a permit system must be in place in Alaska. I fully support the development of an aquaculture industry here. It has the potential to be a profitable addition to my scallop fishing business and one in which I am familiar with the product and the markets. With no licensing system, the State is roadblocking an industry that has been very profitable in other areas of the world. Japanese farmraised scallops have been one of my prime competitors in the last two years; if I could offer my own along with wild scallops, I could recapture the market lost to that type of buyer and perhaps keep my price stabilized by keeping supply consistent. In any event, the production of scallops by aquaculture enables the producer to take advantage of favorable market conditions and personal financial needs.

I urge you to consider the aquaculture legislation favorably. If unprofitable, there will be no concern over allocation of bottom. If profitable, it is shortsighted to prevent its conception as an industry.

Thank you for the opportunity to comment.

Sincerely,



Mark P. Kandianis

Rodger Painter

The Alaska Mariculture Association is a trade organization formed last October to promote the development of a sea farming industry in Alaska.

AMA's membership is composed of municipalities, native organizations, companies, individuals, and, yes, commercial fishermen who have recognized the economic development potential of mariculture in Alaska.

We have been working on the legislation before since the organization was formed. Before responding to any questions you may have regarding House Bill 108, I'd like to take a few minutes to explain why we believe that passage of the bill is good for Alaska.

The Chinese were the first fish farmers. Legend has it that a Chinese emperor farmed carp in ponds so his palace could eat fresh fish year-round. Thanks to recent advances in disease management, brood stock development and understanding the nutritional requirement of fish and shellfish, we can all eat like emperors.

Mariculture is growing quickly throughout the world. Global aquaculture production stood at 22 billion pounds in 1983 or 12 percent of the total world supply of edible fish and shellfish. This is expected to increase to 48 billion pounds by the turn of the century.

This production is keeping pace with climbing world consumption of seafood because production from commercial fisheries is expected to remain static. No where are these trends more apparent than in the U.S. where Americans ate 609 million more pounds of fish and shellfish in 1985 than they did in 1982. This amounts to a 21.5 percent increase in consumption in only four years.

Unfortunately, foreign products have received the lion's share of the increased market opportunity. In 1985 alone, imports of fish and shellfish increased by 14 percent. We exported \$1.1 billion worth of fisheries products that year and imported \$6.7 billion worth. This amounts to a staggering \$5.6 billion fisheries trade deficit.

This situation has created a tremendous market opportunity for American farmed seafood products, while Alaska's seafood market share has obviously been eroding. Alaska's environmental conditions, undeveloped coastline and seafood infrastructure puts the state in a unique position to take advantage of these opportunities.

We believe there are two basic reasons why the legislature should adopt House Bill 108: (1) the potential for economic diversification and creation of new employment opportunities, and (2) the need to strengthen the position of Alaska seafood products in world markets.

There are many species of fish, shellfish and sea vegetables which may prove feasible to farm in Alaska. The ones that have attracted the greatest amount of interest are oysters, mussels, scallops, giant kelp and salmon. The latter, of course, has generated a fair amount of controversy among fishermen who are concerned about market competition.

While it is difficult to determine just how many economic benefits could be created by the development of this industry, some estimates have been developed for salmon farming. Using figures generated in a private economic feasibility study, the House Research Agency calculated that an Alaskan salmon farming industry producing 44 million pounds of product would have a total employment effect of about 1,920 jobs and a payroll of \$48.8 million. A salmon farming industry of this size could have an economic impact roughly comparable to the present Alaska logging industry in terms of resident employment and nearly double the resident payroll.

Incidentally, gross annual sales from a salmon farming industry this size would be about \$132 million.

Important to keep in mind is that these jobs would be year-round. By nature, they will be filled by residents. Also significant to note is that much of the employment would occur in rural Alaska where year-round jobs are far and few in between. Many of the spinoff benefits would go to regional transportation hubs and service centers such as Anchorage in the form of transportation, support services and light manufacturing opportunities.

The shipping of fresh seafood from Alaska on a year-round basis will improve our transportation services and costs. This will help many coastal communities which are strapped with inadequate and expensive transportation systems, as well as commercial fishermen and processors who currently have to compete with the more profitable passenger trade for summer air cargo space.

The seafood industry also would benefit from mariculture development by the opening up of markets for fish food manufactured from the waste of existing processing operations. These processing companies could utilize existing plants on a year-round basis, reducing overhead and providing increased local employment.

A Southeast seafood processor recently told me he supports salmon farming development because, if you will forgive my paraphrasing: "I have a plant I want to operate, a good local work force I'd like to keep on the payroll and customers who are demanding fresh seafood during the offseason. I buy every troll salmon I can get my hands on. Last week I got 500 pounds of troll salmon. Needless to say, the plant didn't operate for long, my employees didn't put in many hours and my customers weren't satisfied."

We also firmly believe that commercial fishermen have a good opportunity to get involved in mariculture. I'd like to read a short section from a recent report by the House Research Agency about a prime example of how fishermen can accomplish this: "The Prince Rupert Fisherman's Cooperative is a model of how a group of traditional North American fishermen can successfully integrate salmon farming into their operations to take advantage of new developments in seafood markets. Members will market their farmed fish in the off season to supplement their wild fish in season. The cooperative produces smolts and fish food for its members and is

experimenting with various types of shellfish for farming application. The combination of technical and research capability with managerial know how and vertically integrated operations makes the cooperative an extremely powerful and adaptive economic unit."

The report adds that members of the Prince Rupert Fisherman's Cooperative, which is the second largest seafood processing company in British Columbia, have 10-20 farms in various stages of development.

The final point I'd like to make is that we believe that the long-range economic stability of Alaska's important seafood industry is directly related to our ability to take advantage of the opportunities offered by mariculture. The global seafood situation is undergoing significant change and our ability to compete in world markets will be determined by how effectively we will be able to offer consumers what they want: fresh, high quality seafood on a year-round basis.

The situation may have best summarized by the House Research Report which said: "Failure to invest in salmon farming could result in: (1) a steady erosion of Alaska's market share in premium salmon markets; (2) underutilized processing facilities (and corresponding loss of potential jobs; and (3) a private non-profit hatchery system that may not be able to generate sufficient revenues (under current operating constraints) to repay its state loans and attain financial self-sufficiency.

"Alaska fishermen will face competition from farmed salmon regardless of whether or not they come from farms in Alaska. There is a limited 'window of opportunity' for Alaska to enter salmon farming and gain a market share."

I'd also like to point out to members that you should have in your packets position papers which address market, seafood processing and investment issues related to mariculture development that have been raised by some fishermen. I'd also like to pass out to you some information responding to non-commerce issues raised by the United Fishermen of Alaska.

And, finally, I'd like to say that AMA strongly supports language restricting tideland permits to Alaskans. I'd be pleased to answer any questions you may have. Thank you Mister Chairman.



CORDOVA DISTRICT FISHERMEN UNITED

P.O. Box 939

Cordova, Alaska 99574

(907) 424-3447

February 23, 1987

Rep. Dave Donley, Chairman
Labor and Commerce Committee
P.O. Box V
Juneau, AK 99811

Dear Rep. Donley:

Cordova District Fishermen United (CDFU) supports the orderly controlled development of shellfish and plant mariculture. Before mariculture is introduced into Alaska, however, a socio-economic study should be done. The study was requested by the United Fishermen of Alaska (UFA), CDFU, Prince William Sound Aquaculture Corporation (PWSAC) and recommended by the fisheries mini cabinet.

The development of salmon farming without the state studies, coastal community input and the recent land grab for fish farm sites in Canada have raised many eyebrows in Alaska. The people of Alaska have entrusted millions of dollars to enhance wild stocks. In 1975, the fishermen of Prince William Sound formed PWSAC and started the most successful hatchery and enhancement program in North America. Enhancement of wild stocks and ocean ranching is the best investment the State of Alaska has ever made. This tremendous investment is now paying for the state and the fishermen. As wild stocks are on the decline, hatchery production is kicking into gear.

PWSAC is one of seven private non-profit regional associations in Alaska and was created by the fishermen and the legislature to enhance salmon production. Prince William Sound fishermen passed a 2% salmon enhancement tax to financially support the salmon enhancement program of PWSAC. The 2% salmon enhancement tax received by PWSAC will amount to \$750,000 annually and will, in turn, partially support the program that will provide \$25 million annually to the commercial fisheries by the year 1995, at which time PWSAC will be providing over half of the commercial fishery revenues in Prince William Sound.

Page Two
Rep. Dave Donley, Chairman
Labor and Commerce Committee
February 23, 1987

It makes no sense to the CDFU Board of Directors to cut funding for state hatcheries, management of the commercial fishery and the enforcement division to start a new industry which will require millions of dollars to get started.

We are harvesting 130 million salmon per year and continuing to build our future salmon runs to obtain greater harvests. We are the fish farmers of Alaska and have made a big commitment to the State of Alaska by building new hatcheries, paying assessments, upgrading fishing vessels and putting out a better quality of salmon all the time. CDFU is concerned that the coastline, wild stocks, traditional fishing grounds and enhancement programs are protected before a fish farming bill is passed.

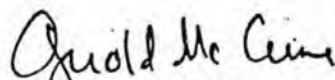
Ocean ranching is the biggest investment in the State of Alaska and the State should keep funding the enhancement programs. Commercial fishing has and always will be a major employer in Alaska, where fish farming will only employ a few.

Foreign companies in some cases are prevented from expanding in their own countries because of legislation protecting local communities. We have made our choice to protect the wild stocks and enhance the salmon runs in the State of Alaska. In five years, the State of Alaska could have five new hatcheries operating and generating revenues before the first pen-raised salmon ever hit the market. We need to keep investing our money to compete on the world market by freezing, labeling and storing our fish products in the State to be distributed all year round.

We urge you to take no action on legislation and development of fish farming mariculture until all concerned groups and communities have had a chance to respond to the impacts of fish farming.

Sincerely,

CORDOVA DISTRICT FISHERMEN UNITED



Gerald McCune
Vice President

GM/mb1

cc: Members of House Labor and Commerce Committee

CORDOVA DISTRICT FISHERMEN UNITED
RECOMMENDATIONS

1. Strict controls to prevent foreign corporations and banks from taking over fish farming in Alaska. This industry should be kept in the hands of U.S. corporations and citizens if Alaska wants the full benefits of fish farming to stay in Alaska.
2. A complete study of the environmental effects of salmon farming on wild stocks and coastline communities.
3. No use of fish farming as a trade off for wild stock fishery habitat lost.
4. Control development of fish farming sites.
5. Alaska keeps control of any aquaculture development.
6. Clearcutting at sites have quality control standards.
7. Limits on proximity of fish farms to other sites and density controls of fish in farms.
8. Regulations covering location of fish farms.
9. Studies of tidal flush out at fish farms.
10. Environmental impacts with respect to wild fish stocks.
11. Concerns of commercial fishing, sport fishing, recreation groups and coastal communities should be addressed.
12. Studies of Norway and Scotland controlled development of fish farming.
13. Continued state funding of PNP and FRED hatcheries to enhance the wild stocks and enhance salmon production by ocean ranching. This means leave the funding in Commerce for the state and PNP to advance our enhancement programs.
14. No importation of Atlantic salmon eggs into Alaska.
15. Research, health inspection and testing of facilities be set up to address concerns of the use of hormones and antibiotics, impacts of toxicants, disposal of dead fish and human waste, predator control and efficient feed practices. Studies have been done implicating the toxicant Tributyltin (TBT) as a human health risk and has recently been found in imported farm salmon. A ban of TBT in the State of Alaska should be made into law.

CDFU CONCERNS

1. Reallocation of State funds and services to fish farming.
2. A rush on salmon farm sites in Alaska without proper guidelines. Loss of traditional fishing grounds.
3. Predator control for fish farms be reviewed and identification of appropriate predator control methods.
4. Impact on water quality and marine environment.
5. Excess feed falling through netpens.
6. Good tidal flush-out sites.
7. Separation of fish farms and shellfish farms.
8. Navigational obstruction of fish farms and safe anchorages lost to the commercial vessels.
9. Conflicts with fish farmers and commercial fishing vessels.

Alaska troll sector fights farmed salmon impact

Fearful that farmed salmon will destroy prices and markets for Pacific troll-caught salmon, Alaska fishermen and processors are launching a campaign to promote the virtues of wild fish.

But the man heading up the campaign admits his efforts are largely a defensive effort designed to retain the market share that still exists for troll salmon.

"We've seen our market share for troll fish from Alaska and B.C. get smaller and smaller over the last five years," says Barry Lester, of the Alaska Troll Salmon Processors Association. "We've seen it reflected in prices.

"From our own point of view as processors our goal is to maintain the markets we have and not see any decline. If we succeed, we should try to expand."

Lester's organization was formed during the spring in response to growing concern in the American troll industry about the impact of farmed fish.

Lester said in an interview Aug. 7 that farmed salmon has invaded traditional troll salmon markets in the European and New York smoked salmon industries. Second grade farmed salmon not suitable for restaurant sale is going into the smoker market as volumes of production rise.

Lester said the processors decided to take a positive approach. "We don't want to say it swims in its own waste and is filled with chemicals against disease. We're trying to talk about the virtues of wild salmon."

The program involves promotions with buyers in European

and New York markets as well as improved grading and quality standards on the grounds and in the plants.

Earl Krygier, spokesman for the Alaska Trollers Association, said his organization is pledged to support the campaign. "We've seen prices soften quite a bit, especially because our troll cohort go to European markets. The Norwegians are definitely making inroads."

Krygier said Alaskan fishermen are solidly behind the moratorium imposed on salmon farm-

ing in Alaska and are reaping the benefits of their non-profit hatchery system. "It would be a real mistake to bring farms in here."

So far the processors have financed the campaign internally, but Lester hopes support will come from other quarters.

Continued erosion of the troll fishery could have "a devastating effect on the economy of Alaska," he said. "We're talking about a way of life. This goes beyond the economic situation to the very existence of fishermen."

B.C. production adds to farmed salmon glut

As trollers see coho and chinook prices tumble under the assault of farmed salmon, experts in Norway are predicting Atlantic salmon production there could soar to 150,000 metric tonnes by 1990.

Even B.C.'s farmed salmon production is shooting up, with harvests this year likely to hit 2,000 tonnes up from only 250 tonnes in 1985.

The forecast Norwegian production is a staggering leap from about 30,000 tonnes last year and double recent forecasts of 30,000 metric tonnes. The 1986 harvest should be between 63,000 and 68,000 tonnes.

Canadian federal and provincial fisheries departments have just begun to assess the impact of the farmed production on existing salmon sales from B.C.

Jim Fralic, aquaculture co-ordinator for the provincial agriculture department says B.C. farmed salmon production should jump to 2,000 tons this year, up from 250 in 1985.

He said declining prices may have an impact on the viability of B.C. salmon farms, which normally forecast their economic position based on the strong prices of the past two years. "We've always been of the opinion that prices for farmed fish would come down," he said.

"We hoped to reduce the cost of production at the same time by reducing the rate of natural mortality. There are indications this is happening as people get more experienced."

Troll prices dive to \$2.25

Trollers found fairly good fishing as the season opened June 20 but needed the volume to partly compensate for a major price cut.

Opening prices posted by B.C. Packers for spring salmon were \$2.20 for large, \$1.65 for medium and \$1.20 for small.

That was a 17 percent cut from last year's July 1 opening prices of \$2.65, \$2.10 and \$1.50. By June 23 this year the prices had moved up to \$2.25, \$1.70 and \$1.35, still far below the July 8, 1985, range of \$2.75, \$2.25 and \$1.70.

Without the protection of a minimum price agreement, troll fishermen are at the mercy of price-cutting processors, who are blaming Norwegian farmed salmon in European markets for the depressed prices.

By July 10, B.C. Packers had raised its prices to \$2.35, \$1.80 and \$1.40.

Coho prices were more stable, opening at \$1.30, \$1.20 and 55 cents this year, compared with 55 cents, \$1.25 and \$1.40 in 1985.

Initial troll spring landings on the west coast of Vancouver Island were good, apparently more because of abundance than increased effort.

Spring returns to the Skeena were double the 10-year average for the first week in July, according to fisheries northern director Paul Sprout. That was in stark contrast to the sharp decline in sockeye returns

By July 10, the fisheries department could report total chinook catches of 35,537 in the northern area up to July 5 and warned that catch controls could be necessary if current catch rates continue.

Northern coho catches totaled 336,537 including 126,036 taken in the week of July 5 alone.

Chinook catches on the west coast of Vancouver Island also were running ahead of forecast. On July 7 the department closed the But Bank to slow the harvest rate. By the end of the week ending July 5 the troll catch had hit 145,300, a figure that fisheries salmon coordinator Eric Kremer said could reflect both increased effort and increased abundance.

Coho catches to the same date were 614,800, also close to the 696,000 mark at which conservation measures could be imposed. Kremer said the department was very close to curbing the coho fishery.

Troll chum catches to July 5 were 64,100 and the Gulf troll catch had hit 36,250.

Sockeye non-retention regulations remain in effect.

Warnings of new difficulties in chinook markets were issued June 13 in *Friday*, the publication of the Pacific Coast Federation of Fishermen's Associations. Even before the season opened, some purchasers refused to sign market contracts.

According to the PCFFA, the California, Oregon and Washington fleet had to return to port in the second week of the season to negotiate a lower price. The prices were slashed from U.S. \$2.65, \$2.25 and \$2.05 to \$2.30, \$2 and \$1.75.

Sales were good until the first week of June when rumors of Norwegian farmed salmon being dumped on the market slowed sales. The story was false but the PCFFA quoted reliable reports indicating that Norwegian sellers dropped prices 50 to 75 cents a pound to retain a market share after the fresh salmon season began.

Toxic chemical detected in farm salmon

A spokesman for B.C.'s ministry of the environment confirmed Nov. 7 that there are no controls in this province on the use of a toxic anti-fouling agent that has been detected in farmed salmon.

The substance is called tributyltin, or TBT, and is one of the most toxic substances known to man. Popular as an anti-fouling paint for boat bottoms, it has been banned in a number of European countries because of the damage it inflicts on the environment.

Now TBT has been detected in pen-reared salmon sold in U.S. seafood markets. According to *Friday*, the publication of the Pacific Coast Federation of Fishermen's Associations, aquaculture products from Puget Sound and Norway purchased in public markets contained concentrations of .28 to .9 micrograms per gram of TBT.

TBT, sometimes used to treat netting used in salmon pens, can be toxic in levels as low as five parts per trillion. Two scientists working for the National Marine Fisheries Service found the substance in baby coho sold in public markets.

"We have no controls on the use of anti-fouling agents," B.C. environment ministry spokesman Michael Coon told *The Fisherman* Nov. 7. "We're in the process of collecting samples. We're trying to assess the problem. It's something we don't know very much about."

Evidently the pan-sized fish are not exposed to the TBT for long enough to die from its effects. The chemical concentrates over time in certain parts of the body.

Coon said the toxic effects of anti-fouling agents are a concern. "It's in everyone's interest to make sure fish aren't contaminated."

OFAWU secretary-treasurer Bill Procopation said the threat of TBTs is another example of the chaos surrounding the B.C. fish-farming issue. "We'll need more than a 30 day review to establish regulations to prevent this kind of damage," he said.

The two American researchers also studied the effect of low concentrations of TBT on juvenile salmon, concluding that exposure to low doses may increase susceptibility to disease.

Norway's salmon farms face tight regulation

Is B.C.'s aquaculture industry as tightly regulated as Norway's?

A day-long seminar on Norwegian fish farming sponsored by the Norwegian Trade Commission June 2 provided the answer: a resounding no!

Among regulatory programs now in place in Norway but barely under consideration in Canada:

- a ban on the use of hormones;
- controls on the use of antibiotics;
- compulsory quarterly inspection for disease;

- limits on corporate concentration, the proximity of farms to each other and the density of fish;

- clearcut quality control standards;

- regulations to ensure safe construction and mooring of pens with environmental controls now being codified in Norway;

- regulation covering the location of farms.

During the 1970s the government actually slowed development and halted the issuance of licences to allow the Norwegian industry to consolidate.

National aquaculture policy claims to protect wild fish

Canada moved a step closer to national aquaculture policy April 28 with an agreement by provincial and federal fisheries ministers to establish interlocking aquaculture legislation.

In a meeting in Winnipeg fisheries minister Tom Siddon told his provincial counterparts that the agreement "is an important step in furthering the development of aquaculture's great potential in Canada."

Although B.C. has no fisheries

minister, the province has begun developing similar federal-provincial agreements as a result of a First Ministers Conference in Halifax in 1985.

The first federal-provincial arrangement, signed between Ottawa and Nova Scotia in March, gives the province the sole licensing authority for aquaculture enterprises as long as federal requirements pertaining to fisheries and related matters are satisfied.

The Winnipeg meeting adopted a statement of national goals and principles for the development of commercial aquaculture. The seven goals include:

- to encourage the development of commercial aquaculture in Canada in a manner that is complementary to the continuing development of the wild fishery;
- to increase the economic returns from "intensified production and harvest of high value, marketable species of fin fish, shell fish and marine plants";
- to improve the quality and expand the variety of Canadian fish products; and
- to encourage long-range stability in the country's fish production through diversity and continuity of supply.

The agreement gives the lead to the private sector in aquaculture development, but pledges government support in economic development and research.

Farm fish to hit wild salmon market

Salmon farmers will be training their guns on traditional wild salmon markets by the end of the decade, say Norwegian experts, and dropping prices could move the date even closer.

Growing production of farmed salmon both in Norway and B.C. has sparked fears among commercial fishermen that existing markets will be undermined by the new production.

This year buyers are predicting a sharp decline in troll chinook prices because of a glut in European smoker markets caused by Norwegian production. The Norwegian product already competes effectively on restaurant tables in Seattle and Vancouver, the heartland of wild salmon production.

But Norwegian marketing expert Karl Johan Ringstad told a Vancouver fish farming seminar June 2 that farmed production of coho and chinook will outstrip wild fish catches by 1990.

Production of farmed Atlantic salmon has already hit 42,000 tonnes, well above the worldwide production of 27,000 tonnes of chinook in 1985 and 43,000 tonnes of coho.

Virtually all Norwegian pro-

duction is exported, 30 percent of it to the United States. By the end of the decade, Ringstad predicted, farmed production will dominate the quality "white table cloth market" and take 15 percent of the fresh market.

"The challenge is to get into other segments of the market," he said. "In the last few months a price drop has reduced profitability in Norway. As the price of farmed salmon decreases it will open new markets. It can be delivered year-round."

In 1978 the smoked salmon market was dominated by wild production, he noted, but now the tables have turned. In the future, farmed salmon may be marketed alongside fresh meat and poultry. "I leave it to you to speculate how many tonnes are required to supply retail outlets even in California alone."

"How low will the price go? I wish I knew," Ringstad said, "but look at the price of chicken."

Farmed salmon is going head to head with chinook already. A later speaker quoted prices in Seattle of \$4 to \$4.25 a pound for chinook between six and nine pounds. Atlantic salmon was being delivered for between \$3.97 and \$4.37.

Ireland freezes foreign fish farms

Ireland has slapped a ban on foreign ownership of salmon farm leases to head off what officials feared could be a take-over of the country's industry.

"We could fill every bay on the Irish coast with salmon cages within two years if we allow the Norwegians in without restrictions," a local official told *Fish Farming International*. He later corrected himself and said "non-nationals" rather than Norwegians.

The Irish Fisheries Department has announced that no further licences will be issued for salmon-farming projects in which nationals of countries outside the European Economic Community have a major stake.

A policy review is under way. By contrast, there is absolutely no curb on foreign investment or control in B.C.'s salmon farming industry, which has a

large Norwegian element. Norwegian investors are attracted to B.C. by much looser regulation than they face at home.

Opponents of outside investment in the Irish industry claim that Norwegians control 60 percent of the fishing farming industry in Scotland and have starved locally-owned farms of smolts from Norwegian-controlled hatcheries.

Angry fishermen are reported to have rammed salmon cages in Scotland in frustration.

Fishermen in Ireland are concerned about the implications of a Scandinavian proposal to raise farmed salmon in converted oil tankers. Even other farmers are fearful of its impact on the environment and markets.

Smolts for the scheme would come for Iceland, posing the threat of importing kidney disease to Ireland.

DFO aquaculture subsidy hits \$3 million in '85

Fisheries Department expenditures in support of the aquaculture industry totalled \$3 million nationwide in 1984-1985, says fisheries minister Tom Siddon.

In reply to a query from Skeena NDP MP Jim Fulton, Siddon said June 2 that DFO "has been the lead federal department in fostering the development of aquaculture in Canada, focussing particularly on research and experimental development, the protection of fish from communicable diseases and the transfer and application of research results to industry."

In the year ending March 1985, the department spent \$2.5 million on aquaculture research,

1984-1985. The amount spent on salmonid enhancement spending was frozen. A further \$500,000 was spent to assist aquaculturists to use the latest methods in rearing and harvesting.

The amount spent on research has increased to \$2.5 million up to March 1985 from \$2.3 million during the previous year.

Siddon told Fulton that fish farmers are eligible for interest-free loans under the Canada B.C. Subsidiary Agreement on Small Business Incentives. More than \$9 million of \$50 million loaned under the program went to fish farmers.

Siddon could not provide a breakdown on how much of the research money was spent on the Pacific coast.

fish farming

INTERNATIONAL

MONTHLY £1.50

DECEMBER 1986, VOL 1

SURPLUS SALMON WARNING

A NEW estimate of farmed Atlantic salmon production and demand comes from the Fish Sea Fisheries Board (BSF).

In a research study of international production and market trends, it finds that the market is expected to grow to 153,000 metric tons by 1990 — with Norway providing 100,000 tons, Scotland 25,000 tons and Ireland 10,000 tons.

For Ireland alone, this could mean net earnings of IR£2 million, exports of IR£14 million and 1,200 jobs.

According to the report of this study, Europe's total demand maximum of farmed salmon production is around 250,000 to 300,000 tons. Norway, says the report, can produce 260,000 tons a year, Scotland up to 40,000 tons and Ireland up to 15,000 tons.

Production may exceed demand by 23,000 tons

Atlantic salmon farming has also been greatly assisted by recent major developments in feed compounding, and stock improvement programmes have been underway for some time.

But, with the prospect of rapidly increasing supplies, there will be a need for more stringent guidelines on marketing with a view to minimising the difference between success and failure.

With the growth in production, falling sea prices and trends for fish and fish products are already evident in most European and North American countries. If continued, they should induce greater consumption of fish, proving a source of added health value, and add to its acceptability.

demand by 1990 could cause reductions in prices and margins greater than farmers and traders presently envisage.

Lower margins will force the least efficient producers out of the industry and will deter potential small-scale newcomers.

The emphasis on greater efficiency will stimulate high standards of technology and training, and a larger minimum viable production unit.

Salmon farms based on integrated stock and sea cage production are unlikely to be less than 500 tons a year capacity, notes the BSF report.

Investment needed for

ditions) would reduce this return to zero.

● We shall be looking at this BSF report and its conclusions in more detail in our January 1987 issue.

FROM THE CLEARANCE OF IRELAND



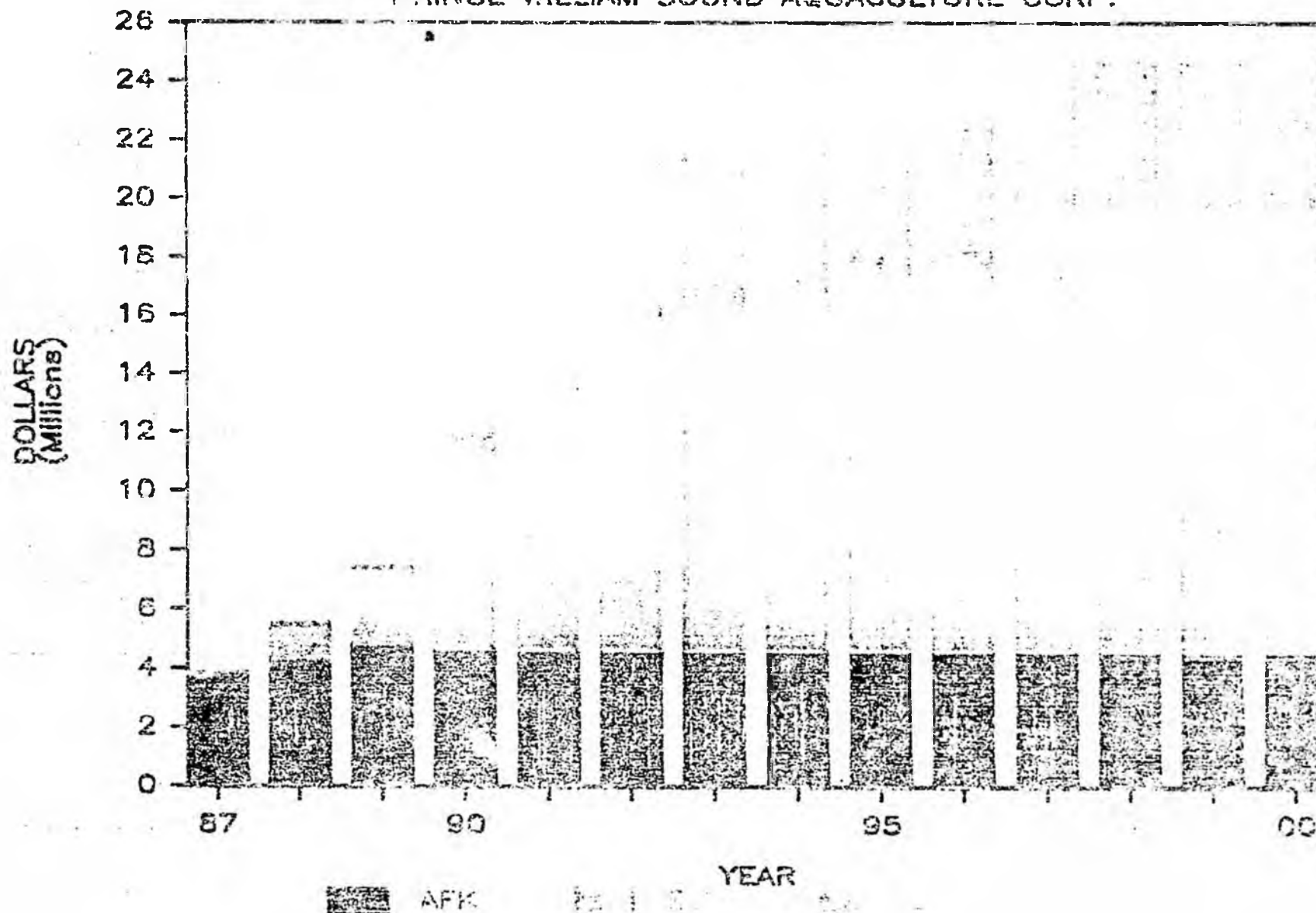
A NEW colour brochure in English says that the salmon's natural habitat location for developing Irish salmon by the Irish Sea Fisheries Board notes that the first crop of farmed salmon harvested in 1977. Production is projected to reach 100,000 tons in 1990.

Bridgestone "Hi-Seas" Fish



TOTAL COMMERCIAL FISHING REVENUE

PRINCE WILLIAM SOUND AQUACULTURE CORP.



PRINCE WILLIAM SOUND SALMON HATCHERY PRODUCTION

HATCHERIES	1988 BROOD YEAR EGG NUMBER (millions)					FINAL EGG CAPACITY (millions)				
	Pink	Chum	Coho	Chinook	Sockeye	Pink	Chum	Coho	Chinook	Sockeye
Armin F. Koernig	126	--	--	--	--	137	--	--	--	--
Bother Island	76	40	1.0	0.12	0.9	211	11	1	4.0	30.0
Solomon Gulch	64	4	1.3	--	--	136	18	1	.3	--
Main Bay	3	85	--	--	--	25	100	--	--	--
Cannery Creek	39	--	--	--	--	111	--	--	--	--
Gulkana Springs	--	--	--	--	30.0	--	--	--	--	30.0
TOTAL	310	129	2.3	0.12	30.9	620	242	2	4.3	60.0

ARMIN F. KOERNIG HATCHERY
 PRINCE WILLIAM SOUND, ALASKA
 PINK SALMON PRODUCTION DATA

BROOD YEAR	FRY RELEASE	FISHERY HARVEST	HARVEST RATE	BROOD STOCK	HATCHERY HARVEST	TOTAL RETURN	TOTAL MARINE SURVIVAL
1975	1,000,000	4,000	10%	15,155	24,845	44,000	1.4%
1976	11,010,577	--	--	40,432	114,188	154,620	1.4%
1977	16,950,784	275,000	50%	54,207	223,748	552,955	3.3%
1978	22,774,739	1,038,700	70%	108,061	346,728	1,493,433	6.6%
1979	21,500,000	1,358,907	60%	193,901	707,037	2,264,845	10.5%
1980	69,737,000	3,615,035	70%	164,545	1,354,732	5,134,363	7.4%
1981	70,118,000	2,890,225	80%	124,278	607,999	3,722,502	5.3%
1982	87,384,533	2,226,423	80%	186,431	387,146	2,800,000	3.2%
1983	76,746,000	3,772,962	75%	271,513	986,141	5,030,616	6.6%
1984	103,531,000	3,872,222	78%	277,706	814,072	4,964,000	4.8%
1985	112,527,515	--	--	--	--	--	--

SALMON FARMING POSITION PAPER

EXECUTIVE BOARD OF DIRECTORS
PRINCE WILLIAM SOUND AQUACULTURE CORPORATION
P. O. BOX 1110, CORDOVA, ALASKA 99574

Over the past twelve months the Executive Board of Directors of the Prince William Sound Aquaculture Corporation (PWSAC) had debated and discussed the pros and cons of establishing a salmon farming industry in Alaska. These discussions were prompted by the previous administration's apparent desire to explore the feasibility of developing the regulatory, administrative and legislative framework to implement a large scale salmon farming industry in Alaska. Considering the fact that legislation has been introduced to both the House and the Senate specifically for the purpose of legalizing the operation of salmon farms in Alaska, we feel that the time is appropriate to express our opinions and concerns to those individuals and agencies that will ultimately be responsible to formulate statewide policy on this issue. There are two major issues that we feel must be addressed and dealt with before the state takes any further steps towards legalizing the development of a salmon farming industry within state waters.

I. Long Term Social and Economic Impacts - Ocean Ranching vs. Salmon Farming

First of all, it is imperative that a long hard look be given to the relative benefit of ocean ranching vs. salmon farming in years to come. This should be done keeping in mind that success of an industry or undertaking be measured by the sum total of its contribution to the people, communities and industries of Alaska, both in terms of social and economic wealth.

The legislation that created both the private non profit hatchery program and the F.R.E.D. Division of AD&FG charged these programs with the responsibility of enhancing salmon runs statewide so that harvest levels in the common property fisheries would support and industry, meet the desires of sport fishermen, and satisfy the needs of subsistence fishermen. At first glance many people interpreted these programs as a "fish welfare subsidy" by which the state pays the bill and commercial, sport and subsistence fishermen thrive. In fact, after ten years of growing and developing, these programs are on the verge of becoming self-sustaining, cost efficient entities that will represent the backbone of Alaska's second largest industry.

The fishing industry is our largest employer and generates more dollars in ex-vessel value and final product marketing than any other industry in the state besides oil.

The ocean ranching programs in Alaska have undeniably stabilized salmon production in areas where unpredictable fluctuations in wild stock returns has kept the Alaska salmon industry from diversifying and growing due to the lack of a constant, ensured supply of product - a necessity in any resource related industry. Product diversification and progressive marketing strategies for pink and chum salmon have just begun to be explored. These avenues of development, aided by the consistent supply of wild and enhanced salmon we have realized in the early 1980's, have provided the salmon industry with its first long term, optimistic outlook in many years.

To try to express the value of Alaska's ocean ranching programs in terms of a cost benefit ratio is virtually impossible. The production of ocean ranched salmon provides fish to be harvested, jobs in the processing industry, product to be marketed and a consistent supply of product year to year. This assures lending institutions that investment in the industry is well-founded. As well as these direct benefits, there are the infinite number of multipliers of income generated to communities and support services throughout the state as the revenues associated with handling large volumes of salmon filter down.

This past year in Prince William Sound (PWS) the ADF&G estimated that 55% of the entire pink salmon harvest can be attributed to ocean-ranching production. The failure of wild stock returns to PWS was not predicted. Without the private non profit and F.R.E.D. Division enhancement programs, millions of dollars invested by fishermen and processors preparing for the coming season would have been lost. Raw fish tax revenues that supplement the city's operational and capital funding needs would have been greatly reduced. Ultimately the state would have had to deal with these losses in the form of subsidies or at least supplemental funding requests from the city. By 1992 PWSAC alone will generate better than \$20 million dollars in direct revenue to commercial fishermen. State investment and support of these programs to this point has been indispensable and demonstrates a great deal of foresight. To sell these programs short now would be a tragic mistake.

Specifically, it is the long term social and economic benefits that ocean ranching has provided that we feel are lacking within the proposed salmon farming industry. It is an undisputable fact that all ocean ranching production by the regional association and private non profit facilities is carried out on a zero budget level by the corporation involved. Incorporated under non-profit status as required by the enabling legislation and subsidized by commercial fishermen through a mandatory enhancement tax, the sole

purpose of this program is to produce fish for harvest in the common property fisheries. The only money retained by these corporations are used for operational funding and retirement of long term debt to the state's revolving hatchery loan fund.

In contrast, the salmon farming industry would operate as a strictly for-profit venture. According to the House Research Agency report "Aquaculture In Alaska" (H.R.A.-A.I.A.), most likely the major investment base in this industry would come from Scandinavian banks, similar to salmon farming development in British Columbia. Alaska has just begun to turn the tide of foreign investment in its fishing industry. If any one word stands out as a calling card to Alaska's fishing industry in the past five years, it is Americanization and what the implementation of the Magnuson Act has done toward that end. If the investment base in the salmon farming industry is for the most part other than domestic, it is safe to assume that the profits will be realized by other than domestic entities. If this is the case and it seems to be a worldwide trend in the salmon farming industry, why should Alaska invest it's resources (water and land) and it's money (resource agency monitoring and regulatory development) in salmon farming when it already has a program (ocean ranching) that it has funded that directly benefits its people and a thriving established industry.

Salmon farming is not a labor intensive undertaking. According to the House Research Agency Report Aquaculture In Alaska; Norway, the country that pioneered salmon farming directly employed only 2,000 individuals in 1984. This hardly represents an industry that could make a significant contribution to the job market in coastal Alaska. There are that many people employed directly by the salmon industry in the small town of Ccrdova in any given year.

The December 1986 issue of Fish Farming International reports in an article by the Irish Sea Fisheries Board (BIM):

"BIM's conclusion from this is that the imbalance of projected supply and demand by 1990 could cause reductions in prices and margins greater than farmers and traders presently envisage.

Lower margins will force the least efficient producers out of the industry and will deter potential small-scale new entrants.

The emphasis on greater efficiency will stimulate high standards of technology and training and a larger minimum-volume production unit.

Salmon farms based on integrated smolt and sea cage production are unlikely to be less than 500 tons a year capacity, notes the BIM report.

Investment needed for such a project would be around UK 22 million pounds and would be capable of earning 18 per cent internal rate of return.

But the investment is risky. A drop of ten per cent in real revenues through low prices would halve the rate of return. A stock loss say every five years (through disease or unusual weather conditions) would reduce this return to zero."

If this prediction by experts within the salmon farming industry proves true, it is clear that a developing industry in Alaska has little chance to establish a significant market share for a product that already shows signs of saturating the market for which it produces.

Further, the investment capital and the level of technology necessary to operate at the scale suggested in order to be competitive predicates an industry that holds very little hope for any vertical integration. This scenario is more likely to create high volume production salmon farms financed by large, multinational corporations that do nothing more than create a few local jobs and pass profits on to parent corporations.

Taking these facts into consideration is hard to visualize this state government, confronted with extremely limited funding for existing programs, creating an industry (salmon farming) that will require extensive agency monitoring and regulatory development, while offering negligible long term social or economic benefits to the State of Alaska.

II. Salmon Farming: Funding and Operational Considerations

The House Research Agency report Aquaculture In Alaska suggests in its section on options for financing of salmon farms that repayment of capital construction loans from the private non profit aquaculture corporations to the revolving hatchery loan fund could be used to fund the development of salmon farming. On page 21 of the report the author states "The cornerstone of Alaska's aquaculture industry is the State's system of public (F.R.E.D. Division) and private non

profit (PNP) salmon hatcheries which are designed to augment the state's natural runs. As enumerated in Chapter One, by almost any economic measure (i.e., employment, income, total economic activity), aquaculture is probably the best renewable resource investment the state has made with its oil wealth."

In the preceding paragraph the author speaks of the tremendous, wise investment the state has made in its ocean ranching program. Yet in the next chapter he suggests taking away the only available funding mechanism the PNP hatchery program has to continue investing in its own and the state's future.

This rationale remains a mystery to us. Perhaps the authors need to be reminded that large portions of those loan repayments are made with funds generated by commercial fishermen paying a mandatory enhancement tax. We suggest that if the House Research Agency had held public hearings as recommended by the Fisheries Mini Cabinet Aquaculture Advisory Committee, they would have been informed by the public that fishermen much prefer their enhancement tax funds be used to further the combined effort of the PNP program and the F.R.E.D. Division in traditional enhancement and ocean ranching endeavors rather than financing a fledgling salmon farming industry.

The Regional Planning Team concept, a combined effort of regional aquaculture corporations and the sport, commercial, subsistence and F.R.E.D. Divisions of ADF&G have produced Regional Salmon Plans throughout the state that define the enhancement needs of each individual region. These plans develop a list of priority projects that will help achieve the enhancement needs of their respective regions. The only mechanism for funding available to the private sector to achieve these goals is the revolving hatchery loan fund and it is imperative that it remains intact.

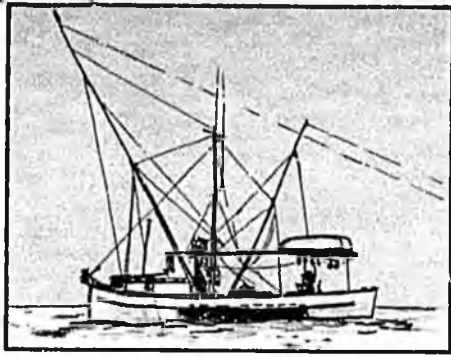
In the House Resource Agency report Aquaculture In Alaska the authors explain that if salmon farming were to become a reality both the genetics and disease control staff and lab facilities would need to be expanded. This represents only two of the many state programs in which both capital and operational funding would have to be expanded to support the salmon farming industry. From our point of view as a regional aquaculture association charged with responsible and beneficial enhancement development in PWS, this is where we find the greatest conflict between salmon farming and ocean ranching in Alaska.

Consider this fact: in 1987 the F.R.E.D. Division claims it will not operate its Cannery Creek hatchery in PWS. This facility cost the state \$4 million dollars in 1979. The hatchery can rear 111 million pink salmon eggs when filled to capacity. Because of a lack of \$180,000 in operational funding, the Cannery Creek facility will forego producing a return in 1989 of as many as 3.5 million adult pink salmon. It is very unlikely that there is any other situation in which the state could invest \$180,000 and produce direct revenues of \$3.5 million dollars, not to mention associated revenue to local communities through raw fish tax funds, local work force in the processing and shipping industry and support services region-wide that generate their income as large volumes of salmon are harvested in the region.

We are in a time that the state isn't even able to fund ongoing projects that for a relatively small investment can potentially produce significant economic gain. It seems irrational for the state to even consider the development of a new venture (salmon farming) that will not only require considerable state support but further, is most likely not even comparable to existing established programs in terms of its potential long term benefits.

In conclusion, we thank you for taking the time to consider our point of view on these issues. Most importantly, we hope you have gained a better understanding of how crucial the continued funding and development of our aquaculture programs are to Alaska's future.

Matthew Luck, on behalf of the
Executive Board of Directors
Prince William Sound
Aquaculture Corporation
February 24, 1987



Alaska Trollers Association

FEB 25 1987

REPRESENTING ALASKA POWER TROLLERS

130 Seward St., No. 213
Juneau, Alaska 99801
(907) 586-9400

TESTIMONY OF THE ALASKA TROLLERS ASSOCIATION

RE HB-108 AND SB-106:

"An Act relating to aquatic farming; and providing for an
effective date."

2/16/87

Earl E. Krygier
Executive Director

EXECUTIVE SUMMARY

The Alaska Trollers Association believes that passage of HB-108 and SB-106, "Act(s) relating to aquatic farming...", in their present form would be detrimental to the Alaska salmon industry and not in the best interest of the State. ATA generally supports of aquaculture, and believes there are many opportunities for Alaskans in various aquaculture developments. However, we specifically oppose those aspects of these companion measures aimed at permitting the pen rearing of salmon in Alaska.

Alaska produces some 43 percent of the world harvest of salmon. The pen rearing industry, spearheaded and dominated by foreign interests and backed by their governments' subsidy programs, is in direct competition with our salmon industry. This applies not just to king and coho salmon, but to all fresh and fresh-frozen product forms. Encouraging those interests to invest in and control pen rearing in Alaska is clearly not in the interest of our industry, and will jeopardize the enormous private and public investments already made in our wild and hatchery stocks. We cannot control the actions of other nations, but we need not actively contribute to the market competition facing our own industry.

We are also extremely concerned about possible biological impacts on our wild stocks. While the spread of an extremely virulent infection from penned to wild stocks may be of a low order of probability, the potential for major damage to wild stocks does exist. With so much at stake, is pen rearing worth the risk? Pen rearing will produce chronic habitat problems local to the rearing sites, will compete for release sites with our existing enhancement programs, and may physically displace existing fishery activity, as has been the case with log dumps.

Proponents assertions notwithstanding, pen rearing will divert increasingly scarce State government resources from existing fishery management programs. Fiscal impacts have not been addressed. ADF&G, DEC, DNR, DCED, and Revenue programs will be effected.

We contend that proponents are exaggerating the potential economic benefits of salmon farming in Alaska. Without the strict controls, which are not contemplated by these Bills, pen rearing operations will not be small, Alaska owned businesses. They will be large corporate operations, utilizing foreign technology, and funded and controlled by foreign interests. The few Alaskan jobs they will provide will be at the lower end of the technical and pay scales of these operations. To the extent that Alaskans are involved, either as investors in foreign dominated ventures or as independents, their position will be precarious. This industry is headed for a major "shake out" worldwide, and small, late entrants will be the most vulnerable.

In sum, salmon pen rearing threatens our existing industry and will not be the bonanza that proponents claim. Alaska's support for aquaculture should be in those areas where we can become the technological and market leaders. Let's not get on a bandwagon which is about to run out of gas!

INTRODUCTION

Proponents of aquaculture say it offers one of the single greatest new opportunities to develop and diversify State and local economies and create new jobs. To hear them talk, you'd think that salmon pen rearing in particular is "the greatest thing since sliced bread." Frankly, your fishermen constituents disagree. They think pen rearing of salmon could well be a disaster for them and a very bad deal for the State of Alaska generally.

It is important to look beyond the enthusiastic statements of proponents about the "great opportunity" represented by aquaculture. We must also look at its' effects on the entire spectrum of the existing seafood and support industries. The past administration's Ad Hoc Committee on Mariculture, including the representatives of the fishing industry, found that aquaculture in general does offer new opportunities - though not without costs. Indeed they found that some forms of aquaculture - pen rearing of salmon to be specific - could, in fact, have detrimental effects on the fishing industry, particularly in Southeast fishing communities.

We, the fishing community, suggest that pen-rearing of salmon - the "fish farming" which is really the key element driving this Bill - poses three principal threats to Alaska fisherman:

- saturation in the price and quality leading sectors of our markets which will eventually impact the price of all Alaska salmon, not just our "top of the line" fish;
- negative biological impacts on our vital wild stocks and rearing habitat; and
- diversion of increasingly scarce State government fiscal and managerial resources toward management of a new industrial sector dominated by foreign capital and operators, to the detriment of our Alaskan industry.

Additionally, we contend that the developmental and employment benefits of salmon pen rearing to rural communities and to the economy of the State in general are being heavily, even irresponsibly oversold by pen rearing advocates.

MARKET CONSIDERATIONS

The advocates of aquaculture claim that consumption is rising and that there will be no competition between the farmed and the commercial forms of seafood. The reality is, that the bulk of the highly touted "world increase" in seafood consumption will occur in shellfish, and cod and catfish type fish rather than in the more expensive salmon species. This projected increased in world consumption has two main components.

(1.) Fish as a Cheap Source of Protein: Aquaculture in Third World countries has increased exponentially during the past few years - mostly in the form of warm water pond culture of tilapia and carp. Such culture in Third World nations is often run in conjunction with annual irrigation of rice fields, or in areas where the yield of protein per acre is grossly in favor of pond culture (fish such as Grass Carp or other herbivorous species for local consumption, or shellfish for export) where lands have a low plant productivity due to bad soil conditions. In the industrialized countries cheap protein is also important, but here consumption increases are largely in the form of "fast-food" fillets for fish sandwiches and deep fried catfish. Indeed, the largest aquaculture sector in the U.S. is Mississippi Valley catfish farming, and the single largest fish processor in the U.S. is a catfish processing plant.

(2.) The Health Benefits of Seafood: In North America and Western Europe, the increased recognition of the health benefits of seafood mostly spawned by the educational efforts of such institutions as the Heart Association and the National Marine Fishery Service, has led to a greater consumption of fish and shellfish. Consumers who increased their consumption for health reasons, are normally more interested in the expensive product forms, such as fresh or frozen salmon.

Unfortunately for Alaskan fisherman, the increased awareness and consumption occurred coincidentally with the advent of the Norwegian pen reared salmon industry - though not because of it, as some would claim. Through aggressive marketing and government subsidized production and shipping (including heavily underwritten air freight rates on the government owned airline SAS) the Norwegians made heavy inroads in this product niche of the seafood industry. Our Alaskan commercial fisherman, unprotected from this heavily subsidized, government organized marketing blitz into their traditional markets, have not enjoyed the benefits of increased demand through higher prices or expansion of market opportunities for our other salmon species, such as frozen reds and ocean bright pinks. So, Norwegian salmon has not just hurt trollers, it has limited diversification opportunities for gillnet and seine caught fish as well.

There is really only one market for quality salmon. This market is worldwide and must absorb all inventory, both fresh and fresh-frozen. As fresh-farmed salmon output increases, it cuts into the commercial high quality fresh-frozen market where Alaskan fish has been traditionally been dominant. Present worldwide production of wild salmon is 600,000 to 700,000 metric tons, the vast majority of which is pink, chum and sockeye salmon. Only 70,000 to 80,000 metric tons are high quality coho and king salmon, and it is these fish which are facing competition from pen-reared salmon. This competition is increasing yearly. The production of pen-reared salmon worldwide is expected to approach

150,000 metric tons by 1990. Such an increase will nearly triple the present volume of high quality salmon. In the world market, Western Europe, Canada, and the United States represent "the marketplace" for high-quality salmon. The troll industry's fresh and fresh-frozen product has already felt the impact of market competition from pen reared fish. Our king salmon price to fisherman has dropped from \$2.50/ lb in 1985 to \$1.80/lb in 1986. Cohos dropped .50 cents /lb this past winter when a large inventory of Norwegian fish was dumped on the French market.

Demand for this high quality fish just can't expand as fast as the supply is growing. Studies indicate that every man, woman and child in the United States would need to exchange a meat dinner for a salmon dinner to increase consumption by 25,000 metric tons per year. If pen-reared salmon production does reach 150,000 metric tons by 1990, then a population the size of the United States would have to eat six salmon dinners per year that they are not presently consuming. This is a product which retails for \$6.00 to \$8.00 a lb. Any economist will tell you that it is unreasonable to expect such a demand increase to occur in such a short time. It also means that the enormous amount of high quality salmon on the market will have to sell at reduced prices to compete within its own market niche, with other seafood, and with a more competitive red meat and poultry industry.

This problem was headlined in the December 1986 edition of FISH FARMING INTERNATIONAL which read, "SURPLUS SALMON WARNING - PRODUCTION MAY EXCEED DEMAND BY 23,000 TONS". The article stated that an imbalance of projected supply and demand by 1990 (three years from now) could cause sharp price reductions and upset profit margins. It stated that lower margins would force the least efficient producers out of the industry and preclude small-scale new entrants. It went on to say that farms which produce less than 500 tons per year (this latter type of large facility has a cost of US\$3 million +) would not have the product volume capacity to reach profit margins. They state that such large investment would be very risky, since a stock loss every five years through disease or the effects of unseasonable weather would yield zero net returns. Such losses are not without precedent. Salmon farmers in Norway, on the Sunshine coast of B.C., and at the National Marine Fisheries Service experimental farm at Little Port Walter in Southeast Alaska, have experienced such losses from algal blooms, stress induced by harassment from marine mammals, and from disease.

Commercial fisherman, as users of a wild, common property resource have been striving for years to stabilize natural fluctuations through hatchery enhancement and resource allocation. Pacific coast fisherman, in trying to solve those problems via the U.S./Canada Treaty, will face not only an increase in production from salmon farms, but the need to market the expected great increases in wild and ocean released hatchery

stocks resulting from the U.S./Canada Treaty. Canada and the Pacific States plan to release 2.6 billion enhancement salmon by 1990 - an increase of 245 percent! Add to this the increases from natural stocks rebuilding to maximum sustainable yield. This represents a tremendous investment in management and enhancement dollars, and tremendous sacrifices by our fishermen to achieve wild stock rebuilding. Pen reared salmon compete with these fish and dilute the value of our already massive investment.

It is also frequently asserted that penned salmon won't compete with Alaskan wild stock salmon since most of our production occurs during the summer, whereas penned salmon are sold in the winter. In fact, 10% of all pen reared salmon is sold in the summer. As long as penned salmon production was low, its summer market impact was not too severe. The total Alaska troll king and coho salmon production was about 9,700 MT in 1985. If full projected pen reared salmon production of 150,000 MT is reached by 1990, then a 10% summer market competition will be 15,000 MT in the summer of 1990. That is, they will dump more fresh fish in the summer market alone than the entire Alaskan troll production. As we have said, Alaskans in general will lose from this competition since the development of new product forms of pink/chum/and sockeye, ie. fresh frozen ocean bright quality, will be out-competed by the fresh farmed fish industry which has already developed its market strategy. But, the hardest hit will be the troll fleet. Our product, both fresh and fresh-frozen, competes head to head with pen reared salmon.

Since the volume of pen reared salmon projected by 1990 will triple the product volume available from the current harvest of all king and coho salmon (the two species which compete most directly with pen reared salmon), the issue of product saturation is both real and imminent. Whether or not Alaska becomes involved in the pen rearing of salmon will not change the fact that our wild stock fishing industry will see an increased market competition with pen reared fish, but we don't have to contribute to the problem.

I've spoken about world market impacts and their effects on Alaska fishermen, but if we allowed pen rearing in Alaska we would also have to deal with direct competition in our local markets. Most pen raised fish would be marketed in the winter when local fishermen are supplying local winter markets and getting their best price. When there is such high winter unemployment, winter fishing is both good for mental health and for the pocketbooks. Local pen-reared fish would severely hurt our local winter markets since buyers would not need to wait - as they're presently accustomed to doing - for a winter storm to pass so that local boats can "sneak back out" for a bit of winter fishing.

BIOLOGICAL CONCERNS

Additionally, salmon farming poses threats to our native stocks and our rearing habitat in Southeast. The rapidly growing aquaculture industry faces two big environmental problems; self-inflicted water pollution around the fish farms, and disease epidemics in the pens.

The problem of pollution from feces and unconsumed feed poses a real habitat problem. Most of the choice sites for aquaculture are important as nursery areas for other juvenile fish and shellfish. The problem of bottom habitat degradation is exemplified by the history of log storage facilities. The scientific literature is full of descriptions of the harmful effects to critical environments from hydrogen sulfide pollution - the same pollutant by-product associated with salmon farms.

As for disease, in 1983 epidemics cost the farmed salmon industry approximately \$110 million. Much of this occurred when a bacterial disease in Norway forced 29 out of 40 farms to slaughter their entire stock. Fish farmers, and feed lot farmers in general, respond to diseases with antibiotics which can lead to new virulent forms of disease. Virulency can take the shape of drug resistant disease strains or as new forms of disease to which natural stocks have little or no immunity. The major countries producing farmed salmon have either destroyed their

natural runs or never had them, so they have no natural stocks at risk. However, Alaska produces 90% of all U.S. landings, which equates to 43% of the world landings, from wild, natural runs of salmon. Can we really afford to risk a major disease induced crash of our wild stocks? We think not! Proponents of pen rearing would like to "wish away" the disease problem, but its not a simple thing to deal with and the risks are potentially catastrophic.

MANAGEMENT AND FISCAL CONCERNS

Pen rearing advocates are fond of stating that they aren't seeking State loans and hence won't have a fiscal impact on State government. This is a ruse. Loans aren't the only way of impacting the budget. With revenues getting tighter and tighter State resource managers are faced with doing more and more with less and less. Introducing pen rearing will have an impact on departments charged with regulating the seafood industry and managing the State's tideland resources. DNR, DEC, Revenue and ADF&G will all have to gear up to deal with permitting, regulating and otherwise managing this new industry. You tell me what it will cost! The only certain thing is that it won't be cheap, and that it will negatively impact already shrinking management efforts applied to our existing fisheries.

I think it would be very wise to have a detailed examination of the fiscal impacts of this legislation before proceeding further.

We have previously mentioned the U.S./Canada Treaty. Two additional programs were sold by the State of Alaska to the fishing fleet which promised a long term future and stability, Limited Entry and Salmon Enhancement. Though these programs hold promise, they have put the troll fleet in a precarious make-it or break-it balance. The farming of salmon can upset this balance. It is important to remember that Limited Entry was instituted to control excess effort and give assurances to fisherman that a reasonable livelihood could be obtained. The State also invested heavily in this process by making State loans available and by instituting additional programs which would benefit limited Entry participants and the seafood industry. Such basic assurances encouraged many Alaskans to invest their lives and wealth in this newly stabilized industry. If the State now decides to allow pen rearing of salmon, which competes directly with Limited Entry fisherman, it will have broken its trust with the existing industry. Additionally, salmon enhancement was conceived and developed in Alaska through a legislative process, the main intent of which was to exclude "private-for-profit" salmon farming or ranching. The Alaska Legislature understood at that time the social and economic implications of private salmon culture on a healthy commercial fishing industry. Those legislators understood that salmon culture was capital intensive and would likely be dominated by out-of-State extractive investment unless regulated to ensure that control and benefits remained in Alaska.

OVERSELLING THE ECONOMIC BENEFITS OF SALMON PEN REARING

Proponents of pen rearing salmon like to claim that they will be able to produce 1,900 jobs. Just how many of these will be held by Alaskans? A recent T.V. documentary promoting the salmon farming industry made a sad, unintended joke of this claim, stating that on the large fish farms on the Sunshine Coast in British Columbia you need to speak Norwegian to get by. We strongly contend that this new industry will not create 1,900 new jobs. On the contrary, it may well displace that many and more existing jobs in the seafood industry and its' supporting industries (shipwrights, fuel and food suppliers, etc.).

The Southeast troll fishery has the highest residency rate of any fishery in the state. Fully 85 percent of our fishermen live here in Alaska. Last year this represented nearly 3,500 fisherman and crew members. Using a standard 2.2 employment multiplier for Southeast indicates that the troll fishery alone may generate a total employment of 7,700 fishing, processing and support industry jobs, all of which are in some degree of jeopardy from pen rearing. Many trollers are barely making it now. Further, price slumps will place even more fishermen in the marginal category, forcing many to seek scarce winter employment on shore, and others to quit entirely. To the extent that Alaska based pen rearing hurts Alaskan fishermen, and it will, we are talking about displacing existing investment with new investment and new

people. As residents of Alaska, we want to see more jobs and more economic stability in our communities for the people that live here now. The following analogy exemplifies our dilemma. The Chamber of Commerce is always a strong local proponent of development. That is, until a Fred Meyers, Safeway, or McDonalds' wants to come to town. We all know that this is because the Chamber is made up of locally-owned small restaurant, grocery and shop owners who want some development, but not "that kind" of development. They know from painful experience that such new development often simply displaces existing industry owned and run by local people. That is the threat our fishermen - your neighbors - see and feel.

Pen-rearing is the latest economic "buzz word". Its logical conclusion is market saturation and an economic shake-out. Alaska's late leap onto the bandwagon - which will run out of gas about the time our production reaches market size - means more economic instability in communities which have suffered enough from the boom/bust economy which has characterized Alaska. The hype over salmon farms reminds me of a similar, though not so global, "new opportunity" in the early 1970's. Remember "worm farms"? Sportsfishermen surely wanted worms and the worm casts made a wonderful plant mix. The only problem was market saturation. Toward the end of that little boom, the only real money in worms was in selling the technology and equipment to "new farmers"! Isn't it interesting that Norway has curtailed developing new salmon farms, but is very hot on exporting its

technology, fry and pens to "new farmers" worldwide? They see the shake-out coming. We'd best have our eyes open too! This isn't just my opinion and advice, as I'm repeating sentiments which are increasingly being expressed in the international aquaculture industry press, most notably FISH FARMING INTERNATIONAL.

Salmon farming is capital intensive rather than labor intensive. Multi-national companies and foreign banks will put up the bulk of the start up dollars, and they will expect the earnings to flow back to them, as do out-of-State companies such as Fred Meyers or Safeway. Those profits won't be retained in the local community. Multi-national corporations are known to come in for the quick initial profits and sell out or just quit business for tax losses which offset other corporate gains. This is not just hype.

Certainly, wise foreign investment in Alaska is needed. We need the inflow of capital. However, such investment should be in the form of joint ventures with Alaskans, not just a license to steal from our resource base. Unfortunately, this bill does not address the issue of controlling the form and rate of growth of this proposed new industry to ensure that Alaskans are the primary beneficiaries (nor has the Alaska Mariculture Association put forth any proposals in this regard). Because of the start-up and operating costs involved, "Ma & Pa" type Alaskan operations will have a difficult time even "getting their foot in the door", and it is even more doubtful that any who did get started could stay

afloat if hit with a disease outbreak or a down turn in the market which all experts project within the next 3-5 years. Advocates of pen rearing like to sell the idyllic view of rural coastal Alaska sprinkled with hundreds of small scale, family run salmon farming operations. We see pictures of the old world charm of Norway with a neat, trim little salmon farm in the foreground. What you, as Legislators, aren't being told is that the Norwegians were only able to accomplish that through strict controls on the size of farms, establishment of quasi-public marketing agencies to ensure sales stability and fair treatment of individual small producers, absolute limits on the total number of entrants, etc. - in sum, strong central control over the magnitude, location and conduct of development. Nobody is even talking about those kinds of controls here. So, what will our development really look like?. Odds are it will take the form of large corporate farms with minimal labor inputs. Wherever possible these will be located outside existing cities or villages to avoid local taxes. Managerial personnel will be largely non-Alaskan. This is hardly a view to gladden the hearts of those who see salmon farming as a means to alleviate rural poverty in Alaska, but it is accurate. Just look at what has happened in B.C.

It would be interesting to know if Sealaska, one of the main promoters of this new industry, plans to invest it's own capital, or is it looking for foreign investment capital?

SUMMARY

It's true that many of the aforementioned impacts will occur whether or not Alaska allows the farming of salmon. We can do little more than prepare for the glut of high priced fish by assuring our quality standards and strongly promoting the market virtues of "Wild Alaskan Fresh And Fresh-Frozen Salmon."

The only real justification for permitting the pen rearing of salmon in Alaska is to produce benefits for residents of the State. We need to know in what manner and under what conditions pen rearing of salmon can produce benefits to Alaskans which outweigh the social and economic costs of introducing the new industry. The only answer which make sense to us, is one which compliments the existing industry rather than bringing in new people to compete with the existing seafood industry. Unfortunately, the advocates of pen rearing have not provided us with such a solution, and failing that, we don't see any good reason why the State of Alaska should actively contribute to aggravating difficulties for its own industry by permitting and promoting pen rearing of salmon here.

If entrepreneurs want to develop new aquaculture opportunities which do not negatively impact our existing industrial base, that's great. Indeed, we think there are many opportunities for Alaska to get ahead of the competition in new aquaculture technologies. There is already interesting work going on with scallops and oysters, and there is available technology for

lobster culture which might well be adaptable to high value Alaska crab species. These, and a host of other opportunities are what you should be encouraging. However, we ask you to say no to pen rearing of salmon, and urge you to beware of placing the State in a position of having to cope with the economic instability of a new industry which is nearing a major shake-out worldwide.

I would like to close my testimony with these thoughts from an article in the January, 1987 issue (pg. 5) of SEAFOOD INTERNATIONAL headlined "Salmon Prices Fall As Supply Forecasts Rise":

"Salmon prices are falling, and the Irish Sea Fisheries Board (BIM) is predicting they will continue to do so over the next five years. BIM commissioned a study to examine the potential supply and demand situation for farmed Atlantic salmon in the next decade, and the effects of increased production levels on prices. Using information based on the Norwegian, Scottish and Irish salmon farming industries, BIM concludes that adherence to strict quality standards and efficiency in production, marketing and distribution will become of crucial importance; but prices will still fall. (S)ome experts were forecasting...salmon prices...on a par with cod. The last two months of 1986 certainly saw a drop in price levels (in Europe). In the USA plentiful supplies also pushed prices down, and this is expected to continue. Meanwhile,

in all countries, production forecasts are up for this year. Future emphasis is likely to be on frozen fillets, portions, blocks and prepared items, with merchandising aimed at convincing the consumer that each country's salmon is the best."

Alaska Mariculture Association

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(907) ~~586-2082~~ 463-3600

Mariculture Development and Alaska Processors

Alaska has some of the world's largest seafood processing capacities, but most of these plants remain idle or under-utilized for much of the year. Mariculture offers the opportunity to utilize these plants on a year-round basis, lowering overhead costs, providing more stable work forces and allowing Alaska companies to be more competitive in markets seeking continual supplies of fresh seafood.

Cultivation of shellfish--oysters, mussels, scallops--offer the opportunity for Alaska processors to diversify product lines, while salmon farming can provide a flow of fresh product during the off-season for commercial fishing. The year-round nature of mariculture also will help improve transportation services and lower the cost of moving product to the marketplace.

Mariculture also will provide a good market for fish food made from the waste generated at processing plants.

The complementary nature of mariculture to commercial seafood production is apparent in British Columbia where processors report an increasing flow of farmed salmon into existing processing facilities. A recent report prepared for the B.C. government said the B.C. Fisheries Council which represent major fish processors in the province "reported that a trend was beginning whereby many processing companies were joint venturing with fish farms to market their product, thereby using the excess capacity of existing plants. Government sources indicated that over 50 percent of farm salmon had recently been contracted for processing by the major unionized companies."

A recent article in the magazine Canadian Aquaculture points to a growing interest among processors in fish farming. "I think salmon farming could be the biggest thing in the seafood industry," said Harry Guenther of J.S. McMillan Fisheries. Guenther said the company plans to develop hatcheries to supply salmon farms, pick up grown fish from the farm sites, and provide processing and marketing services.

"Right now we all have underutilized production capacity," Guenther said. "Fish farming means these assets can be operated 12 months a year."

(over)

B.C. Packers, the largest processor in the province, also is processing and marketing farmed salmon. Explains company officer Vance Lipovsky: "B.C. Packers is in the business of selling fish. It's not important whether it comes off a boat or from a farm as long as it's of high quality."

Another example of the compatibility of fish farming and seafood processing comes from the east coast of Canada where Connors Brothers Limited has expanded into salmon farming. "We've taken an idle fish plant and turned it into a hatchery and feed plant," said a Connor Brothers spokesman. "Aquaculture allows us to keep employees we might otherwise have to lay off and provides additional employment opportunities as well."

The Prince Rupert Fishermen's Cooperative, B.C.'s second largest processing company, provides a clear example of the opportunities for both processors and fishermen. The House Research Agency reports that groups of six to eight fishermen are forming partnerships with local entrepreneurs to finance and operate salmon farms. Cooperative members have 10-20 farms under development. The coop operates hatcheries and a feed mill to service farms of members and to sell surplus production to others. The cooperative processes and markets the wild and farmed production of its members. These fishermen also are experimenting with oyster and mussel farming.

In explaining his support for mariculture development, one Southeast Alaska processor recently told the Alaska Mariculture Association that he wants to operate his plant, retain his local work force and supply customers seeking fresh fish on a year-round basis. Despite his efforts to buy all the troll salmon available during the winter fishery, he was able to purchase only 500 pounds of product the previous week. Naturally, the workers were sent home, the plant sat idle and the customers bought fish elsewhere.

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM

February 17, 1987

SUBJECT: CS HB 108 (L & C)
TO: Rep. Dave Donley
FROM: Ed Hein, LAA *EA*

Enclosed is the draft CS you requested on aquatic farming. Apparently in order to operate or construct an aquatic farm or related hatchery, a tidelands site-use permit is required from DNR. In my opinion, the legislature may constitutionally limit permits for the use of state land as an aquatic farm to residents and corporations licensed to do business in the state. Because of the time constraints, I have not been able to research this question more thoroughly. *EA*

Alaska Mariculture Association

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Costs of Entering Salmon Farming vs. Fishing

One of the issues raised during discussions of mariculture development is the high cost of entering salmon farming. The Alaska Mariculture Association (AMA) believes the costs of establishing a salmon farm are comparable to many fishing operations in Alaska.

An economic feasibility study of salmon farming prepared for an Alaska corporation estimated the initial capital and operating costs of establishing a small (110,000 pounds annual production) at \$243,000. The study estimated the initial cost of a larger farm (440,000) at \$896,000.

According to the fisheries consulting firm of Garner and Williams, following are typical initial costs of entering the Bristol Bay salmon fishery, including the purchase of a new vessel and permit.

Estimated Costs of Entering the Bristol Bay Drift Salmon Fishery

Vessel, electronics, gear	\$120,000-200,000
Permit	130,000
Insurance (4% of vessel cost)	4,800-8,000
Groceries	2,000
Fuel	2,000
Transportation/miscellaneous	5,000
TOTAL	<u>\$263,800-347,000</u>

The cost of entering the Bristol Bay salmon fishery should be considered a mid-range fishing investment. The following examples of capital costs taken from the classified ads show a wider range on entry costs. The vessel costs are for used boats.

Vessel/Gear/Permit Costs for Some Alaska Fisheries

Power troller (44' wooden) with permit	\$87,000
Prince William Sound gillnet (28') w/permit	110,000
Cook Inlet salmon seine (36' fiberglass) w/permit	157,500
Steel seine vessel w/SE salmon permit	289,500
w/SE salmon & herring permits	589,500
w/False Pass salmon permit	500,000
AK Peninsula drift/longline (46') w/salmon permit	550,000
66' steel crabber/longliner w/refrigeration	350,000
53' steel seiner/crabber	400,000
108' steel joint venture dragger	1,950,000

STATE OF ALASKA THE LEGISLATURE

POUCHY - STATE CAPITOL
JUNEAU, ALASKA 99811
907 465-3800

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM

February 16, 1987

SUBJECT: Sectional analysis of HB 108, relating to aquatic farming

TO: Representative Johnny Ellis

FROM: Edward H. Hein *EH*
Legislative Counsel

Section 1 is a statement of legislative findings and policy, specifying the benefits to the state that aquatic farming could provide and expressing a state policy of encouraging the development of aquatic farming.

Sec. 2 establishes a new chapter, AS 08.06, in the businesses and professions title of the Alaska Statutes. AS 08.06.010(a) prohibits the construction or operation of an aquatic farm, or a hatchery to supply an aquatic farm, without a permit from the commissioner of commerce and economic development. Subsection (b) states what activities are authorized under a permit. Subsection (c) allows the commissioner to attach conditions to a permit in order to protect public health and natural aquatic animals and plants. At page 2, line 11, "natural" should be changed to "wild".

AS 08.06.020(a) provides for permit applications forms. Subsection (b) requires a permit application to include permit fees and a report of a health inspection conducted by the Department of Fish and Game within 30 days before filing the application.

AS 08.06.030(a) requires that a person have an acquisition permit from the Department of Fish and Game in order to acquire wild aquatic plants or animals to supply an aquatic farm. Subsection (b) states that an acquisition permit authorizes only those stock specified in a permit. Subsection (c) requires the commissioner of fish and game to specify the expiration date of permits and allows the commissioner to attach conditions to the permit. A harvest

Representative Johnny Ellis
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February 16, 1987

under an acquisition permit is exempt from limitations applicable to sport, commercial, or subsistence harvests. Subsection (d) directs the commissioner of fish and game to send a copy of each acquisition permit application to the commissioner of commerce and economic development. Subsection (e) authorizes the commissioner of fish and game to deny or restrict an acquisition permit to protect the sustained-yield management of a species. There must be a factual basis for the denial or restriction. If impairment to sustained-yield management could not have been foreseen and avoided, the commissioner must explain why in the decision. Subsection (f) states four alternative conditions under any one of which the commissioner of fish and game must issue an acquisition permit. Subsection (g) states that plants and animals acquired under a permit become property of the permit holder. Subsection (h) directs the commissioner of fish and game to make stock available for aquatic farming purposes.

AS 08.06.040 prohibits the importation into the state of aquatic plants or animals to supply an aquatic farm or hatchery without authorization from the commissioner of fish and game or under a Board of Fisheries regulation. I would recommend that on page 4, line 13, after "hatchery" the phrase "required to have a permit under AS 08.06.010," be inserted, so that it is clear that this section does not apply to all hatcheries.

AS 08.06.050(a) provides that a private hatchery required to have a permit under AS 08.06 may sell or transfer stock only to an aquatic farm or hatchery that has a permit under AS 08.06. Subsection (b) requires that the commissioner of commerce and economic development be notified at least 30 days before stock is transferred to or from an aquatic farm or hatchery. Subsection (c) requires that the notice required under (b) include a stock health inspection report. Subsection (d) allows the Department of Fish and Game to restrict or disapprove a transfer under certain conditions. Subsection (e) prohibits transfers, sales, and purchases of Alaska aquatic farm products unless the products were produced under a permit. References in this section to "this chapter" should be changed to read "AS 08.06.010"; these appear at page 4, lines 17, 19, and 21, and at page 5, line 10.

AS 08.06.060 prohibit the release of trout or salmon from an aquatic farm or hatchery into state water, unless authorized by the Department of Fish and Game.

Representative Johnny Ellis
Page 3
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AS 08.06.070(a) allows the Department of Fish and Game to order the quarantine or destruction and disposal of diseased hatchery stock or aquatic farm products in order to protect wild stock. Permit holders are required to report disease among their stock or aquatic farm products to the department. Subsection (b) requires permit holders to allow the Department of Fish and Game to inspect the farms and hatcheries during operating hours with reasonable notice. Subsection (c) requires the department to develop a disease management and control program. Subsection (d) allows the department to contract for the performance of its duties under (b) and (c).

AS 08.06.080 authorizes the commissioner of commerce and economic development to adopt regulations necessary for AS 08.06.

AS 08.06.090 makes violation of AS 08.06 or regulations adopted under it a class B misdemeanor.

AS 08.06.900 defines terms for AS 08.06.

Sec. 3 requires the commissioner of natural resources to monitor aquatic farms and hatcheries that hold permits under AS 08.06.010 for the presence of paralytic shellfish poisoning.

Sec. 4 makes the centralized licensing provisions of AS 08.01 in the Department of Commerce and Economic Development applicable to aquatic farms and hatcheries under AS 08.06.

Sec. 5 prohibits the Board of Fisheries from adopting regulations or taking action regarding aquatic farm or hatchery permits under AS 08.06, or to a harvest under an acquisition permit.

Secs. 6, 7, and 10 delete provisions relating to fish farming from AS 16.05 in order to conform to provisions of sec. 2.

Sec. 8 inserts cross-references to AS 08.06, necessitated by sec. 2.

Sec. 9 exempts aquatic farming from the licensing requirements in AS 16.05 for sport fishing, hunting, and commercial fishing and vessels.

Representative Johnny Ellis

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February 16, 1987

Sec. 11 exempts purchases and sales of aquatic farm products from the requirements of AS 16.10.265 - 16.10.267, relating to commercial fish purchases and possession of limited entry permits.

Sec. 12 provides for the inclusion of aquatic farmers in regional aquaculture associations.

Sec. 13 makes provisions related to salmon hatchery permits inapplicable to hatcheries holding a permit under AS 08.06.-010.

Sec. 14 makes an exception to restrictions on the resale or transfer of salmon eggs or fry by a salmon hatchery. The exception would allow resale or transfer to a hatchery or aquatic farm holding a permit under AS 08.06.010. This section also requires that surplus eggs from salmon returning to a hatchery be made available to hatcheries supplying aquatic farms.

Sec. 15 provides that requirements relating to funds derived by a hatchery from the sale of salmon eggs to a hatchery that supplies aquatic farms must be expended in the same manner as provided for funds from sales of eggs to other hatcheries.

Sec. 16 makes the provisions of AS 16.43, relating to limited entry, inapplicable to activities authorized under an aquatic farm permit.

Sec. 17 exempts aquatic farm products from the provisions of AS 16.51, which relate to the Alaska Seafood Marketing Institute.

Sec. 18 provides an immediate effective date for the bill.

EHH:mi
wkmi1/047

**STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE**

REQUEST: _____
 Bill Version: HB 108/SB 106
 Publish Date: 2/4/87
 Revision Date: N/A
 Title: Aquatic Farming: Mariculture
 Agency Affected: Commerce & Econ. Dev.
 BRU: Economic Development Advocates
 Sponsor: Rep. Ellis/Senator Zharoff
 Requestor: _____
 Components: Office of Commercial Fisheries Development

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES	15.0	5.5	6.0	6.6	7.3	8.0
TRAVEL	10.0	5.5	6.1	6.7	7.3	8.1
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	25.0	11.0	12.1	13.3	14.6	16.1

CAPITAL						
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REVENUE	5.0	10.0	15.0	20.0	25.0	30.0
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FUNDING: (Thousands of Dollars)

GENERAL FUND	25.0	11.0	12.1	13.3	14.6	16.1
FEDERAL FUNDS						
OTHER						
TOTAL	25.0	11.0	12.1	13.3	14.6	16.1

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

This program will become a priority mission of OCFD and shall be assigned to existing personnel. Initial permit requests are not expected to exceed 80% of one Development Specialist II available time. Travel is programmed for site visits as envisioned by the bill and contractual includes phone, photocopy and

Prepared by: W.G. Paulick Phone: 465-2162
 Division: Office of Commercial Fisheries Development Date: 2/17/87

Approved by Commissioner: Anthony Smith Date: 2/17/87
 Agency: Department of Commerce and Economic Development

Distribution (by preparer):

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)
- Senate Secretary

1987 LEGISLATIVE SESSION
FISCAL NOTE

HB 108/SB 106

Analysis: (Continued)

other expenses related to permitting as required by the bill. FY 87 includes funding for public hearings, etc., to finalize new regulations. Program receipts have been estimated by using a fee of \$100 per annual permit; 50 new permits per year.

fish farming

INTERNATIONAL

MONTHLY £1.50

1986 → DECEMBER

SURPLUS SALMON WARNING

A NEW estimate of farmed Atlantic salmon production and demand comes from the Irish Sea Fisheries Board (BIM).

In a research study of international production and market trends, it finds that the market is expected to grow to 153,000 metric tons by 1990 — with Norway providing 100,000 tons, Scotland 25,000 tons and Ireland 10,000 tons.

For Ireland alone, this could mean farm earnings of IRE32 million, exports of IRE44 million and 1200 jobs.

According to the report of this study, Europe's technical maximum of farmed salmon production is around 250,000 to 300,000 tons. Norway, says the report, can produce 200,000 tons a year, Scotland up to 30,000 tons and Ireland up to 15,000 tons.

The market will determine the limits to output. But other constraints will include lack of suitable sites for sea cages.

Ireland is already facing this problem, notes BIM. But Bridgestone cages have been used in exposed sea conditions with encouraging results.

Production may exceed demand by 23,000 tons

Atlantic salmon farming has also been greatly assisted by recent major developments in feed compounding; and stock improvement programmes have been underway for some time.

But, with the prospect of rapidly increasing supplies, there will be a need for increasing emphasis on marketing with effective performance making the difference between success and failure.

With the growth in production, falling real price trends for fish and frozen salmon are already evident in most European and North American countries. If continued, they should induce greater consumption. And growing awareness of salmon's health value will add to its marketability.

However, total world demand for Atlantic salmon by 1990, after considering present trends in individual markets, "is likely to be only 130,000 tons, which is 23,000 tons less than forecast production".

BIM's conclusion from this is that the imbalance of projected supply and

demand by 1990 could cause reductions in prices and margins greater than farmers and traders presently envisage.

Lower margins will force the least efficient producers out of the industry and will deter potential small-scale new entrants.

The emphasis on greater efficiency will stimulate high standards of technology and training, and a larger minimum-volume production unit.

Salmon farms based on integrated smolt and sea cage production are unlikely to be less than 500 tons a year capacity, notes the BIM report.

Investment needed for such a project would be around UK£22 million and would be capable of earning 18 per cent internal rate of return.

But the investment is risky. A drop of ten per cent in real revenues through low prices would halve the rate of return. A stock loss say every five years (through disease or unusual weather con-

ditions) would reduce this return to zero.

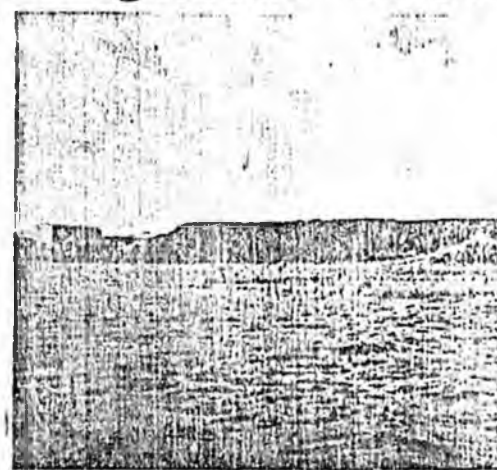
● We shall be looking at this BIM report and its conclusions in more detail in our January 1987 issue.

FROM THE



A NEW colour brochure says that the salmon location for development by the Irish Sea Fisheries Board notes that the first harvested in 1977. P tons in 1990.

Bridgestone "Hi-Sea"



One of four Bridgestone Fish Cages

Since the introduction of the first Bridgestone Cage succeeding 18 months have seen the sale of a further 18 items World-wide. Thirteen times larger than a typical new contracts are repeat orders from existing customers. Exceptionally severe weather conditions in Ireland demonstrated without reservation the unequalled durability of Bridgestone Warranty.

TUESDAY, FEBRUARY 17, 1987

GOOD AFTERNOON. TODAY WE ARE GOING TO TAKE UP HB 70, RELATING TO THE STATE MEDICAL BOARD AND HB 108, RELATING TO AQUATIC FARMING.

HB 70 IS DESIGNED TO HELP THE STATE MEDICAL BOARD PURSUE INVESTIGATIONS OF MEDICAL MALPRACTICE COMPLAINTS. IT WAS REQUESTED BY THE MEDICAL BOARD AND IS ENDORSED BY THE CITIZENS COALITION FOR TORT REFORM.

REPRESENTATIVE SUND, THE PRIME SPONSOR, IS AVAILABLE IF THE COMMITTEE HAS QUESTIONS TO DIRECT TO HIM. OTHERWISE WE HAVE BECKY BEAR FROM DCED, KATHY MARSHAL FROM THE DIVISION OF OCCUPATIONAL LICENSING, AND DR. CONLEY, CHAIR OF THE STATE MEDICAL BOARD.

DR. CONLEY, WOULD YOU PLEASE COME TO THE WITNESS TABLE AND IDENTIFY YOURSELF FOR THE RECORD.

* * * * *

WE WILL NOW TAKE UP HB 108, AN ACT RELATING TO AQUATIC FARMING. BEFORE WE BEGIN TESTIMONY TODAY, I'D LIKE TO LAY A FEW GROUND RULES.

INITIATING A MARICULTURE INDUSTRY IN ALASKA IS AN EXTREMELY COMPLEX ISSUE. THE MOST DIFFICULT AND COMBERSOME OF THESE ISSUES WILL BE DEALT WITH IN THE RESOURCES COMMITTEE, THE NEXT COMMITTEE OF REFERAL.

FOR OUR PURPOSES TODAY, I WILL LIMIT TESTIMONY SOLELY TO LABOR AND COMMERCE ISSUES. THIS MEANS THAT WE WILL NOT HEAR ABOUT ANAROBIC CONDITIONS, STATE PERMITTING PROCESS, AND HOPEFULLY NOONE WILL FEEL OBLIGATED TO MENTION THE WORD "FISH".

CONSIDERING THE NUMBER OF WITNESSES WE HAVE ON THIS MEASURE, I WILL LIMIT TESTIMONY TO THREE MINUTES PER PERSON. I RESERVE THE RIGHT TO STOP THE TESTIMONY IF YOU VENTURE INTO ISSUES BETTER HANDLED IN THE NEXT COMMITTEE OF REFERRAL.

WE HAVE REPRESENTATIVES FROM THE AGENCIES AFFECTED BY THIS BILL AVAILABLE IF ANY COMMITTEE MEMBERS HAVE QUESTIONS FOR THEM.

THERE IS A PROPOSED COMMITTEE SUBSTITUTE ON HB 108 BEFORE YOU. MY STAFF HAS HIGHLIGHTED LANGUAGE ADDED TO THE CS. I WILL BRIEFLY RUN DOWN THOSE CHANGES FOR THE BENEFIT OF COMMITTEE MEMBERS AND WITNESSES.

only if we get the bill
DRAFT intime.

THERE ARE THREE SECTIONS ADDED TO THE FINDINGS AND POLICY SECTION BEGINNING ON PAGE ONE;

"DEVELOPMENT OF MARICULTURE IN ALASKA WOULD STRENGTHEN THE COMPETITIVENESS OF ALASKA SEAFOOD IN THE WORLD MARKET PLACE BY BROADENING THE DIVERSITY OF PRODUCTS AND PROVIDING YEAR-ROUND SUPPLIES OF PREMIUM QUALITY SEAFOOD."

"IT IS THE POLICY OF THE STATE THAT AQUATIC FARMING BE DEVELOPED IN A MANNER THAT ASSURES FULL PARTICIPATION AND FULL BENEFITS TO THE PEOPLE OF ALASKA."

"IT IS THE POLICY OF THE STATE THAT AQUATIC FARMING BE DEVELOPED IN A MANNER CONSISTENT WITH PROTECTION AND ENHANCEMENT OF TRADITIONAL HIGH VALUE INDUSTRIES AND WITH PROTECTION OF OUR NATURAL RESOURCES."

IN ADDITION; LANGUAGE HAS BEEN ADDED TO;

tideland

LIMIT OWNERSHIP OF LAND USE PERMITS FOR AQUACULTURE FACILITIES TO ALASKA RESIDENTS AND/OR ALASKA LICENSED BUSINESSES.

REQUIRING THE DCED COMMISSIONER TO MAKE AN ANNUAL REPORT TO THE LEGISLATURE ABOUT THE PROGRESS OF THE MARICULTURE INDUSTRY INCLUDING ITS IMPACT, IF ANY, ON TRADITIONAL FISHERIES AND RECOMMENDATIONS FOR ANY STATUTORY CHANGES THAT MAY BE NEEDED.

REQUIRING THE DCED COMMISSIONER TO PROMULGATE REGULATIONS NECESSARY TO ASSURE THAT A MARICULTURE INDUSTRY IS DEVELOPED IN A MANNER CONSISTANT WITH THE POLICIES AND FINDING OUTLINED ON PAGE ONE.

* * * * *

WE WILL BEGIN TESTIMONY ON HB 108 BY HEARING FIRST FROM THE PRIME SPONSOR, REPRESENTATIVE ELLIS.

Due to time constraints, this language is not yet in the CS. The committee will have to adopt this language "in concept" for inclusion in final CS.

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

Bill Version : SB 106/HB 108
Publish Date : 2/4/87

REQUEST: _____

Revision Date: _____
Title : _____

Agency Affected : ADF&G
BRU : FRED

Sponsor : Zharoff et al, Ellis et al,
Requestor : _____

Components : FRED

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES		157	157	183	236	330
TRAVEL		6	6	10	17	20
CONTRACTUAL		1	1	2	1	8
SUPPLIES		2	4	6	10	22
EQUIPMENT				1	2	5
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING		166	168	202	269	385
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		166	168	202	269	385
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME		2	2	3	3.5	9
PART-TIME		1	2	1	2	0
TEMPORARY		1	0	0	0	0

ANALYSIS : (Attach a separate page if necessary)

This analysis estimates costs of pathology services and permitting based on 100 permit applications in FY 88, ultimately resulting in 20 operational fish farms by FY 92 of economically significant size.

(see attached for additional comments)

Prepared by : Dr. Mike Kail Phone : 465-4160
Division : ADF&G/FRED Date : _____

Approved by Commissioner : *Thomas* Date : 2-2-87
Agency : _____

Distribution (by preparer) :

- Legislative Finance
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- Office of Management and Budget
- Impacted Agencies
- Senate Secretary

Estimated cost of services to be provided by ADF&G are fish pathology services, permit processing and technical oversight.

For pathology services, estimated costs are based on current workload and budget for the section at this time, to arrive at a per-unit cost (e.g. \$600,000/37 hatcheries = \$16,000/hatchery). An additional \$12,000 is budgeted for investigations and diagnostic services in the first year. Types of services are: diagnostic, broodstock, water source analysis, shellfish certification, pre-release inspection, and human health concerns.

For permitting and technical oversight services, an assessment of work requirements was made by calling the Marine Resources Division of the B.C. provincial government. For the first three years, two full-time technicians would be required. Thereafter, manpower needs will diminish. The types of work to be undertaken will be communication with applicants, review of application materials, coordination with programs such as coastal zone consistency review, and technical biology and fish culture oversight.

It is very difficult to anticipate what will happen if a mariculture program is enabled in Alaska. We have prepared this note based on observations and consultations with managers of similar programs. We then applied this to Alaska, using the incomplete data at hand. These must be considered rough estimates of cost. As further information becomes available, the fiscal note could change. Also, as the bill becomes modified as it passes through the legislative process, there may be changes in the bill that will have corresponding changes in the fiscal note.

TESTIMONY ON AQUACULTURE
BY RICH DAVIS
HOUSE LABOR AND COMMERCE COMMITTEE
2/25/87

FEB 28 1987

I represent the deep concerns, and views of the individuals I have spoken with regarding fish farming in Alaska. Each of these people, some of them fishermen, some not, asked me to tell you of their opposition to fish farming in our State. They agree with your desire to promote mussel, shellfish, and aquatic plant farming. We see little chance of economic impact, and are all for it as long as no hazzards are posed to our delicate coastal marine environment.

There is no blossom waiting to open the minute fish farming is turned loose in Alaska. If you lawmakers give this industry a green light, we can only guess at its chance of getting off the ground. Economic conditions are already stacking against fish farming in our State. You must consider: the cost of the fish, farming equipment, transportation cost, cost and availability of feed, Alaska's distance from the market, and the imminent overabundance of pen raised fish bound for market in 1990. No one can say the market will even accept the forcasted glut of pen raised fish headed toward the consumers. An overabundance of salmon spells lower prices for the entire salmon industry, fishermen included - don't forget this!

A flood of information is before you regarding fish farming. One piece states the the concerns of Alaska's commercial salmon fishermen "may be somewhat unwarranted"; there is no authority in this statement, only the author's opinion.

Some proponents of fish farming legislation have played down, and tried to cover up the imminent economic impact of farmed fish on our commercial salmon fisheries. They admit wild salmon prices could be affected by increased pen raised fish production. The salmon fishermen are sure that prices for their product will be reduced if fish farming is allowed and encouraged to take root here.

As elected Representatives, you have the responsibility to act on the concerns of the people you represent, not to make decisions that adversely impact them! If you encourage this new industry and it sinks, out the window goes money spent by our State for regulation, enforcement, licensing, and management - effort and lots of money that you lawmakers know we can't risk wasting.

This State spent years and millions of dollars building, managing, and promoting Alaska's wild, natural, and renewable salmon resource. Nearly 45,000 people worked in Alaska's \$414 million 1986 commercial salmon harvest. It's estimated better than half these people are Alaskan residents. Remember also their dependant families. You Legislators can't ignore the concerns and desires of that great segment of our population. If the fishermen of this State say they are facing crippling economic impact, then you had better do all you can to protect their industry.

There is a chance that our commercial salmon industry could be economically displaced with your vote on this legislation, and we're warning you not to take that risk. Don't take a gamble that may further reduce Alaska's struggling economy. You want no part in undermining our commercial salmon industry.

Stand up for Alaska's fishing industry! Prohibit fish farming until the predicted pen raised fish glut passes, and the economic and environmental consequences are facts, not suggestions and conjecture. You will be called dedicated leaders and be respected by us all.



COMMERCIAL SALMON FISHERMAN



UNITED FISHERMEN OF ALASKA

Jack Cadigan
Executive Director
907-586-2820
1-800-478-FISH

Chad W. Grogan
re suggested
amendments

Mr. Chairman and Members of the Committee:

My name is Rob Blake and I am here to express some of the concerns the United Fishermen of Alaska and the Cordova District Fishermen United have with the CS for House Bill #108.

Our basic concerns are outlined in the United Fishermen of Alaska's Resolution 87-3, passed unanimously by the Board of Directors at their annual meeting the first week in February, which is:

Keeping in mind that Alaska has 90% of the U.S. salmon production and 43% of the world salmon production, excluding pen-reared salmon, you can understand our anxiety.

We raise the following issues:

1.
 - (a) Disease related problems have the potential of affecting existing stocks of wild salmon which are fully utilized by sport, commercial and subsistence users, or are needed for PNP brood stock or spawning escapement.
 - (b) Potential of polluting the quality environment needed for continued production of wild stocks of salmon, sea run trout and other aquatic plants and animals by use of antibiotics in treating pen-reared disease problems, surplus fish food damaging the bottom dwellers around net pens, restriction of water current movement because of net pen placement, human waste and garbage contamination, etc.
 - (c) Genetic alterations are a potential concern; after several cycles of altering and domesticating, pen-reared salmon, upon escaping, could in turn effect the gene pool of wild stock.
 - (d) What are the impacts of hormones, toxicants (ie. TBT) antibiotics, etc., on the natural environment, animals and the human food chain?

2. Where do the smolt or eggs come from to start up a Mariculture industry?
 - (a) Certainly not from imported stocks - the history of importing smolts is laden with disease problems.
 - (b) Wild chinook in Southeast is still in the build-up stage to help fulfill the U.S./Canada Treaty obligations.

Southeast hatcheries are not up to maximum capacities to meet that obligation either, and even if they are close, what about the ever increasing needs of the sportfish, commercial and subsistence common property users? Chinook and coho stocks in Southeast are fully utilized under the existing fisheries and industry. The same goes for Cook Inlet and Prince William Sound, any surplus spawning escapement is currently utilized by FRED and FNP hatcheries for supplementing existing user group fisheries. All the chinook and coho stocks West of Cook Inlet are also fully utilized by existing fisheries or escapement.

3. Funding problems that need to be addressed:

.F.R.E.D. Division of the Alaska Department of Fish & Game would be required to bear inspection costs. They would have to develop a disease control and management program and provide all types of associated services. Where's the funding for these additional costs going to come from? The F.R.E.D. Division is forced by the proposed FY88 budget to close down four State hatcheries and reduce its other programs, all of which are valuable to existing users.

.D.E.C. will have to be involved with all the environmental research and monitoring. While that agency's budget isn't proposed to be cut this year, they simply don't have enough funding to monitor existing problems (even the Alyeska Pipeline Terminal).

.D.N.R. is way behind on existing work loads of permitting, land use planning, etc. That agency's budget is being cut even further.

.D.C.E.B. is set up in this legislation to be a lead-type agency. They are taking a 26% budget cut, I believe, for FY88.

None of the agencies involved are able to carry out their current legislative mandates and program needs for their existing respective user groups. Shouldn't their budgets be brought up to levels to meet the current needs of existing industries and user groups before the Legislature imposes more changes on them? I can appreciate the Legislature's desire to enhance the State's economy, but not at the expense of reducing the economic potential of existing industries.

4. Physical displacement of traditional users: Commercial fishermen fear disruption from traditional fishing grounds and anchorages, as well as the hazard to navigation salmon farms will pose. We have to assume that sport fishermen, recreational boaters and tourists will feel the same way. Waterfront property values could also diminish, depending on the siting of such farms. Tourism is a blooming industry in this State. People come to Alaska to find esthetic values, to photograph pristine environment, and to have the ultimate experience sportfishing and hunting, not to see salmon farms scattered all up and down the coast in all the favorite fishing spots and anchorages.

5. The PNP and State hatchery program has been stated as the best renewable resource investment the State has made with oil dollars. It's a shame that the State did not make more money available for this venture during times of plenty, because the program collectively has not come close to achieving its potential throughout the State. Our hatchery system supplements the wild stock resource for the common property fishery. Every person in this State has access to the hatchery-produced fish if they so desire, via commercial, sport or subsistence fishing. This venture in hatchery production has created many more jobs for State residents and helped maintain the economic viability of the commercial and sport fishing fleets in much of the State. In Prince William Sound, for instance, the commercial fishermen opted to increase the salmon resource rather than eliminate many of the fishing permits. We have done this through ocean ranching and it works. Our Prince William Sound hatcheries are also producing chinook and coho for sport fishermen and tourists. If the State is ever again going to invest in the salmon industry, it should invest in the proven commodity, and not in potential disaster. The existing industry provides many, many thousands of jobs.

6. Funding: As stated earlier, the State is not willing or able to fund the four agencies that will have to be involved with this Mariculture legislation to a level that will allow them to adequately manage their present obligations. This needs to be rectified first. Both the Enhancement and Commercial Fishing Loan programs have been mislabeled "revolving". The principle and the interest from both programs go directly into the General Fund upon repayment. Both loan funds are literally out of money unless the Legislature makes an appropriation to them. Some of the loans from these programs have been transferred to AIDA to help finance things like the Red Dog Mine. These loan repayments go directly to AIDA, not to the General Fund. It might be a consideration of this Committee to look into this "non-revolving" situation before there is no money left for reinvestment in the State's largest non-oil industry.

7. What are we trying to accomplish with pen-reared salmon? Are we trying to create a "cottage" industry, a "mom and pop" show up and down the coast, or are we trying to develop an environment for multi-national investors to exploit to the fullest by providing a few jobs and taking home the profits (if there are any) at the expense of several existing industries? If the State is desirous of maximum potential benefit to the State itself, or its residents, it will have to make a tremendous financial investment in order to pull it off. Norway had to do it because its rural coastal communities were drying up from lack of fisheries resources to sustain their economy. Norway also had very little natural "salmon" resource to worry about or consider affecting. Alaska's present economic situation and flourishing salmon stocks do not mandate such a move. Besides, it does not appear that the limited size structure restricted by Norway to accomplish their goal will be economically viable in Alaska. Without the money to do it in-State, the only logical option would be to allow outside investors to come in, bring their experts and equipment with them, and control an industry that will provide just a few local resident jobs while competing for General Fund dollars and services at our expense. In my "logical" scenario, it would be prudent for the State to carefully analyze the actual value gained for potential cost incurred. As commercial fishermen, we realize the market impact of pen-reared salmon on Alaska wild salmon. While we don't feel that pen-reared will ever really displace our harvests, we do already feel an impact and will continue to feel that impact with or without Alaska being involved. If this Committee is intent on pursuing SB105 in its present form, then it should consider including in the legislation a time frame during which pen-reared salmon could be sold in order to not directly compete for market space during the wild salmon seasons.

Other suggestions are:

- Page 2, Line 20: Change <may> to "shall".
- Page 3, Line 18: Change <may> to "shall".
- Page 3, Line 29: Change <may> to "shall".
- Page 4, Line 2: Delete <substantially>.
- Page 4, Line 4: Delete <substantially>.
- Page 4, Line 9: Change <shall> to "may".
- Page 4, Lines 21 & 22: Delete both lines.
- Page 4, Line 27: Include after Board of Fish, "except that no finfish or eggs may be imported into the State of Alaska for the purpose of supplying stock to an aquatic farm or hatchery."
- Page 5, Line 13: Change <may> to "shall".
- Page 6, Line 11: Delete <and upon reasonable notice>.
- Page 8, Section 4, Lines 3 thru 10: We strongly recommend deletion of this Section and insert that the Board of Fisheries be involved with the permit process.
- Page 11, Line 7: Change <must> to "shall".

As the U.F.A. and the C.D.F.U. support the careful and controlled development of shellfish and plant mariculture, and we are not desirous of slowing down the process by which the existing shellfish farmers can continue, or new farmers becoming involved, we suggest that this Committee split the two issues into two separate bills, thus allowing shellfish legislation to proceed with little or no resistance.

We appreciate the opportunity to speak on this issue during its last hearing and will be providing more information and comments in the future. Thank you.



UNITED FISHERMEN OF ALASKA

Jack Cadigan
Executive Director
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UNITED FISHERMEN OF ALASKA

RESOLUTION 87-3

WHEREAS in 1985 the United Fishermen of Alaska requested the State of Alaska to perform a thorough study of the biological, economic and sociological problems and potentials of salmon pen rearing in Alaska, but this study has not yet been undertaken; and

WHEREAS the UFA supports the careful and controlled development of shellfish and plant mariculture; and

WHEREAS the development of the salmon farming concept of mariculture will adversely affect the fishermen and the most successful hatchery and enhancement program in North America by: (1) reallocating State funds and services; (2) competing with markets for wild salmon; (3) preventing water and land use of traditional fishing, hatchery, enhancement, and smolt rearing and release sites; (4) increasing the potential disease contamination of the wild stock; and

WHEREAS no realistic fiscal note has been produced to identify the cost to the state incurred by the management of the proposed activities;

NOW THEREFORE BE IT RESOLVED that the Board of Directors of the United Fishermen of Alaska urges the State of Alaska to take no action on legislation and development of salmon farming mariculture until such time as the aforementioned issues of concern are addressed through private and public forums.

Robert M. Blake

Robert M. Blake
President

2/6/87

Date